

GWENDOLYN LEICK



HISTORICAL DICTIONARY OF
MESOPOTAMIA

SECOND EDITION

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Historical Dictionary of Mesopotamia

Second Edition

Gwendolyn Leick

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Editor's Foreword

Mesopotamia was one of the oldest and broadest cradles of civilization. Unlike Egypt, which was a relatively unified state, it was the site of many different city-states, kingdoms, and empires, frequently at odds with one another, and replacing one another as the locus of power—Akkad, Ur, Babylon, the Kassites, Isin, Assyria—and then tending into the more “modern” Achaemenid, Seleucid, Parthian, and Sassanian dynasties. The transfer of power resulted from a superior capacity in warfare, not so different from our times, and the rise of great leaders such as Sargon of Akkad, Hammurabi, Nebuchadnezzar, Darius, and Alexander the Great. All the while, the Mesopotamians also are known to have been practicing the arts of peace; developing agriculture, metalworking, and trade; devising forms of writing; constructing monumental buildings; organizing an administration and bureaucracy; worshipping various gods; laying down laws; and determining who was higher and who was lower in society—again, not so different from our times. That is why Mesopotamia remains so intriguing, showing where we came from and part of how we got where we are, and maybe even giving us some insight into where we’re heading.

The message would obviously be much clearer if, like Egypt, there had been a relatively unified state rather than many statelets that tended to wipe away earlier traces left by predecessors, and if the sands of time—and the desert—had not covered over so many of their remains. Thus, what we have been able to uncover, and do know with a reasonable degree of certainty, is particularly precious. So it is nice to have much of it presented in a handy form by the *Historical Dictionary of Mesopotamia*.

The dictionary section helps us sort out the many city-states, kingdoms, and empires; the famous and less well-known rulers (some far from glorious); the arts of war and the arts of peace; the signs of a maturing civilization and high culture; plus aspects of everyday life, including food and drink, clothing and jewelry, housing and cities, social relations and the formation of families, marriage, and even divorce. The whole period is too complicated for a

straightforward chronology, but the areas can be followed in the chronology and the rulers in [Appendix 1](#). The bibliography is very helpful in suggesting in some detail where further readings can be found.

Writing this book, with its myriad periods and aspects, was no easy task. But it was certainly easier for someone, Gwendolyn Leick, who has already written several books on the ancient Near East and its architecture, literature, and mythology, as well as a “who’s who” and an introduction to the Babylonians. Dr. Leick has spent nearly three decades studying, lecturing on, and writing about Mesopotamia. She has also taught at the universities of Glamorgan, Cardiff, and Reading, and in London, and is a fellow of the Royal Anthropological Institute. This long and varied experience is the basis for the latest volume in the steadily growing series of Historical Dictionaries of Ancient Civilizations and Historical Eras.

Jon Woronoff
Series Editor

Readers' Note

The pronunciation of ancient names is a modern reconstruction and a convention rather than an accurate phonetic rendering. Although cuneiform writing indicated vowels (unlike ancient Egyptian), it is not clear how they were spoken at any given period. Consonants were sometimes written in several different ways, hard or soft, which indicates that there were phonetic variations (e.g., *Hammurapi* as well as *Hammurabi*). Sumerian may have had nasal sounds, but this is not clearly indicated in writing.

Conventionally, the vowels of Sumerian and Akkadian words are pronounced as in German, partly as a result of the pioneering work of German scholars in cuneiform lexicography and grammar. The letter *a* is therefore as in *far*, *e* as in *very*, *i* as in *is*, *o* as in *core*, and *u* as in *full*. Diphthongs are not in evidence, and two successive vowels, as in *Eanna*, should be pronounced separately, as in *theater*. Akkadian, as a Semitic language, had a number of guttural sounds, such as the ‘ayin, the qof, and the throaty *h*, and several sibilants (sade, sin, and shin), as well as dental *t* (tet). These are not indicated as such in this volume, except for *s* in Akkadian words, which is rendered as *sh* in transcribed names. The accent is generally on the penultimate syllable.

The names, order, and dates of ancient rulers are not fixed, due to gaps in the transmission, damage to the surface of tablets, and insufficient data for some periods. Dates in the dictionary follow the “middle chronology.”

The use of boldface type serves as a cross-reference to other entries in the text.



Chronology

Prehistoric Periods

Names	Dates
Middle Paleolithic	c. 78,000–28,000 B.C.
Upper Paleolithic	c. 28,000–10,000
Neolithic	c. 10,000–6000
Chalcolithic	c. 6000–3000
Hassuna	c. 5500–5000
Halaf/Ubaid	c. 5000–4000
Uruk	c. 4000–3100
Jemdet Nasr	c. 3100–2900

Historical Periods

Southern Mesopotamia

Names	Dates
Early Dynastic I	c. 2900–2750
Early Dynastic II	c. 2750–2600
Early Dynastic III	c. 2600–2350
Dynasty of Akkad	c. 2334–2193
Third Dynasty of Ur	c. 2112–2004
Old Babylonian period	c. 1800–1595

Isin-Larsa dynasties	c. 2025–1887
First Dynasty of Babylon	c. 1800–1600
Kassite Dynasty	c. 1475–1155
Second Dynasty of Isin	c. 1155–1027
Second Dynasty of Sealand	c. 1700–1570
Dynasty of E	979–647
Assyrian domination	732–626
Neo-Babylonian Dynasty	626–539

Northern Mesopotamia

Names	Dates
Old Assyrian period	2025–1365
Middle Assyrian period	1400–1050
Neo-Assyrian empire	934–610
Achaemenid empire	550–330
Seleucid Dynasty	305–126
Parthian period	126 B.C.–A.D. 224
Sassanian period	A.D. 224–651
Islamic period	Since 642

Introduction

The Greek name *Mesopotamia* means “land between the rivers.” The Romans used this term for an area they controlled only briefly (between 115 and 117 A.D.)—the land between the Euphrates and Tigris rivers, from the south Anatolian mountain ranges to the Persian Gulf. In modern usage the geographical definition is the same, but the historical context is wider and reaches much further back than the period of the Romans. It comprises the civilizations of Sumer and Akkad (third millennium B.C.) as well as the later Babylonian and Assyrian empires of the second and first millennia. Although the “history” of Mesopotamia in the strict sense of the term begins only with the inscriptions of Sumerian rulers around the 27th century B.C., the foundations for Mesopotamian civilization, especially the beginnings of irrigation and the emergence of large permanent settlements, were laid much earlier, in the fifth and fourth millennia. Archaeological research is the main source for these prehistoric periods, and it also plays a very important part in the process of understanding and interpreting later periods, complementing written evidence.

GEOGRAPHY

The key element in the development of Mesopotamian cultures was the gradual adaptation to the ecological conditions of the region. The original homeland for Stone Age humans was the Levantine coast. The first experiments in cultivating cereals and domesticating animals occurred in this more naturally fertile region, which received a higher amount of annual rainfall. In the Neolithic period (c. 10,000–6,000 B.C.), other areas on the lee side of mountain ridges, in Syria and Anatolia, became inhabited, and the first

densely occupied settlements with permanent architecture appeared. This gradual shift took place as hunting and gathering gave way as the main form of subsistence to agriculture or nomadic pastoralism. Northern Mesopotamia (between the south Anatolian mountain ridge and the latitude of present-day Baghdad) was situated in the geographical zone in which rainfall agriculture was possible. The earliest Mesopotamian settlements, dating back to the sixth millennium, were found here. Excavations at sites such as Tell Brak, Tell Arpachiya, Tepe Gawra, and Nineveh have yielded plentiful polychrome painted pottery and sometimes substantial buildings.

In contrast, the alluvial plains of the south lie in one of the driest and hottest regions of the world, neighboring the great deserts of Syria and northern Arabia. The oldest archaeological sites there date from the fifth millennium and are concentrated in the marshy areas of the south. Their material remains appear simpler in comparison to the finds of the north. However, in the late fifth and throughout the fourth millennia, this began to change as the southern alluvium began to be more densely inhabited. Making use of previous experience with extensive agriculture, people began to intensify the exploitation of the fertile river valleys. This demanded much greater investment in terms of labor and expertise than in the more temperate climates but offered the potential of achieving substantial surplus yields that could feed large populations. In the following historical periods, such knowledge was perfected to allow for intensive cultivation of subsistence crops, especially barley and, later, date palm, using sophisticated systems of irrigation, crop rotation, and collective labor deployment on large parcels of land.

URBANIZATION

During the height of the Uruk period (c. 3400–3200 B.C.), so called after the old city of Uruk, southern Mesopotamia had close economic links to northern and eastern neighboring regions. Sites in southern Anatolia, northwest Syria, and eastern Iran show the same material culture, architecture, and accounting devices as in Uruk. This city appears to have been the center of administration for this complex system of trade and exchange, the largest and earliest urban settlement, with its impressively monumental public buildings and evidence of early bureaucracy (discussed later). Though it is still a matter of debate to what extent Uruk exercised political control over the vast area in which Uruk-style buildings and artifacts have been found, it is clear that the regularized contact with an urban center made an impact on the peripheral regions and that the administrative expertise gained during this period was invaluable for the subsequent development of the Mesopotamian economy.

The Uruk “world system” fell apart toward the end of the fourth

millennium, and southern Mesopotamia became relatively more isolated. During the Early Dynastic period (c. 3000–2350 B.C.), many new urban centers developed. The most efficient exploitation of cultivated land was achieved through institutional control over coordinated seasonal tasks, storage, and distribution of food and seed. The city-state emerged as the most suitable socioeconomic unit in response to these demands, with its production and administrative centers, the temples and palaces. Such city-states were composed of a more or less coherent territory of fields, canals, and villages. The walled city accommodated the majority of the population as well as public buildings and sanctuaries that embodied the “identity” of the community as residences of the city gods. City dwellers rather than rural people provided the bulk of the labor force to sustain the agricultural basis of the Mesopotamian economy. They were also recruited to maintain the irrigation works and public buildings. Most of the general workforce labored for subsistence rations in one of the large institutional or, later, private households. Of great importance for the efficient management of such complex land-holding organizations were written records. Uruk literacy achievements were superseded by a system that allowed phonetic values to be represented in writing. Scribal skills were taught in a largely homogenized system, making use of syllabaries, sign lists, and lexical lists. By the mid-third millennium, cuneiform writing, still primarily pictographic, was used for several languages with very different linguistic structures (e.g., Sumerian, Semitic Akkadian and Eblaite, and Elamite).

The success of Mesopotamian agriculture was its ability to produce enough surplus not only to feed the laboring masses but to free a large sector of the population from subsistence efforts. There was enough grain to support full-time craftsmen, bureaucrats and administrators, cult performers, and other professionals. The early lists of professions from the Early Dynastic period enumerate a great variety of occupations. Prolonged intensive exploitation of the available resources, however, could lead to conflict over rights to land and water. The historical records of the Early Dynastic period document violent clashes between neighboring cities. Mesopotamia was also seen as a breadbasket by peoples inhabiting less fertile lands. Raids on villages and fields were a constant threat in border regions, and population pressures from such peripheral areas with limited carrying capacity for expansion, such as the desert in the west and the mountains in the east, could result in sometimes massive waves of immigration.

THE EMERGENCE OF STATES

Mesopotamia was highly able to absorb new populations, but the process was

by no means smooth and unproblematic because it demanded considerable social adjustment to settled and urban life. Although scholarly sources always stress cultural continuity, the different values of immigrant peoples did contribute to changes in political structure and social norms. Mesopotamian culture was always heterogeneous. In the third millennium, Akkadian and Sumerian were two of the languages that were expressed in writing side by side. In later periods, too, ethnic and linguistic differences within the population continued to exist, and some ruling dynasties were of foreign origin. The fact that there were always a number of urban centers, with their own institutional bases and traditions, mitigated the overwhelming influence of mass immigration and centralizing politics.

Although cities were the most typical and arguably the most efficient sociopolitical units in Mesopotamia, competition between them could lead to violent conflicts that at times engulfed the whole region. To counterbalance such threats to overall stability, cities could unite to form alliances; there is some evidence that this was attempted during the Early Dynastic period. A more lasting solution was the formation of a unified state governed by a king whose authority was recognized voluntarily by or imposed forcefully upon all cities. As long as kings respected the prerogatives of the more powerful religious institutions and provided an efficient and coherent military policy toward neighboring countries and raiding tribes at the borders, they could count on the collaboration of the urban citizenry. The palace was responsible for the maintenance of infrastructure (especially canals) and of public buildings (e.g., city walls) and the repair of sanctuaries. The king could order conscripted labor for the army and civilian projects. He could invest revenue from military campaigns (i.e., slaves, tribute in kind, silver and gold) for such purposes as well as for the endowment of temples. At some periods land, especially in peripheral regions, could be awarded to trusted individuals in perpetuity.

The first unified state was that founded by Sargon of Akkad around 2350 B.C. His inscriptions stress, on the one hand, that he secured access to far-flung trading sources (e.g., the timber-bearing mountains of the Amanus or the silver mines of Anatolia) and that he honored the great gods of "Sumer and Akkad." His successors had to suppress internal rebellions and campaign to secure control over their foreign conquests. They also interfered in land ownership and redistributed large tracts of agricultural land to private persons. The Akkad Dynasty was the first experiment with centralization; after its demise the country reverted to the particularism of independent city-states. Too-stringent demands in the form of taxation and conscription and insufficient investment in public works, as well as lack of respect toward the old centers of religion, usually provoked rebellion and insurrection. Determined rulers with a well-motivated army could repress such challenges to their power for a while but not forever. Internal unrest often invited foreign aggression, either from neighboring states or from tribal groups looking for

new territories. Many a Mesopotamian dynasty was brought to an end in such circumstances. The strong reaction against repressive states often led to a more or less prolonged interval between the end of one regime and the implementation of another.

Toward the end of the third millennium, the Third Dynasty of Ur reunited the country once more and initiated centralization on an unprecedented scale: all cities were forced to adopt a standard system of time reckoning, weights, and measures; all senior appointments were made by the king; and all local institutions became subject to central control and taxation. This was sustained by a well-trained army of bureaucrats who supervised all areas of production. In subsequent periods, the control of the state was relatively weaker, and Old Babylonian kings relied on personal charisma and the use of force to command allegiance.

The Kassite Dynasty (1600–1155 B.C.) ruled Babylonia for some 500 years and seems to have managed to curb the political independence of the old cities by encouraging smaller economic units, such as small towns and villages, in the countryside. However, how successful this policy was is hard to determine because of the lack of written sources for much of this period. The last 200 years of Kassite rule were also overshadowed by massive immigration from the east, ecological problems, and foreign invasions. Such natural and man-made upheavals of the countryside had devastating effects on the population. Famine and disease decimated the densely inhabited urban quarters and caused cities to be more or less abandoned, sometimes forever.

Throughout Mesopotamian history, there were cycles of prosperity and economic and political stability, interrupted by ecological depravation and social unrest. The myths of the flood as a punishment for human “noise”—a result of overpopulation—articulates that the ancient world was well aware of how precarious the balance between growth and sustainability was, despite the unprecedented carrying capacity of the alluvial landscape.

NORTHERN MESOPOTAMIA AND THE RISE AND FALL OF ASSYRIA

Northern Mesopotamia, whose geographical conditions were more like those of its western and northern neighbors than the southern alluvial plains, also had different political and cultural patterns than the south. Small-holding farmers, large landowners, and seminomadic pastoralists, rather than inhabitants of urban centers, were in charge of the agricultural exploitation. Tribal organization under the leadership of a patriarchal sheikh was the common pattern. Cities were primarily centers of trading as opposed to

agricultural production. Charismatic kingship played an important role in political development. The north also experienced the influx of different ethnicities. Of great importance were the Hurrians, for instance, who brought their own religious customs to northern Mesopotamia, as well as an expertise with horses and metalworking. The kings of Akkad and the Third Dynasty of Ur claimed hegemony over the north and built temples and public buildings in cities such as Nineveh and Assur. The Ur administration introduced literacy and sparked a local development of writing.

The early Assyrian period, from the early second millennium, is mainly known from texts found in the trading centers of Cappadocia (in modern Turkey) since the residential levels of Assur have not been excavated. Assyrian traders brought tin and textiles to Anatolia and carried back silver. The first important ruler of the north was the Amorite leader Shamshi-Adad I, who operated from a base in the Habur valley and obtained control over the Assyrian cities. He became a powerful king whose influence reached deep into Babylonia, but he did not leave a lasting legacy.

The Hurrians, governed by an Indo-European elite, established their own state—Mitanni—in the mid-second millennium that was engaged in intense rivalry with the Hittites of Anatolia. In the 14th century, Assyria began to grow into a strong and expansionist state under such kings as Ashur-uballit I and Adad-nirari I. They began to intervene in the affairs of Babylonia, and this started a long period of tenuous relations between the two countries in which Assyria emerged the stronger. Both countries suffered a decline from the 12th to the 10th centuries B.C., experiencing massive immigration of tribal groups from the west and ecological disasters. Assyria recovered more quickly than the south, and a number of energetic warrior kings established the basis of what was to become the most powerful state in the whole of the Middle East.

The Neo-Assyrian empire was built on a highly efficient, well-equipped, and professional army, a well-trained civil service, and the principle of co-opting subjugated local rulers as allies. The symbolic center of the state was the capital city, which housed the royal residence, the administrative center, the arsenal, and the sanctuaries of the main deities. Different kings preferred different cities as their capital. The expansionist policies of the Assyrian kings brought enormous revenue but also exacted constant campaigns to repress rebellions and defend dependent regions from outside aggression. The expansionist imperial regime of Assyria collapsed partly as a result of the kings' own policies, such as the practice of dislocating rebellious populations, and the reliance on punitive campaigns to impose their rule over an ever widening territory. The efforts to maintain control over Babylonia also proved to provoke increasingly fierce resistance, and in the end it was a Babylonian Median coalition that destroyed Nineveh and the other Assyrian cities and thus brought Assyrian power to an end.

AFTER NEBUCHADNEZZAR: THE DECLINE OF MESOPOTAMIA

The Babylonians were quick to claim the inheritance of their oppressors and became in turn an imperial state that exercised control over much of the Near East right to the Mediterranean shores. Nebuchadnezzar made Babylon into the most dazzling city of the world. But the imperialist phase was of short duration, and the Achaemenid rulers claimed sovereignty over an even larger territory, from eastern Iran to Egypt. Since in Babylonia the collective identity was heavily invested in religious symbols (the cults of the great gods of Babylonia), the tradition of urbanism found that dynasties of foreign origin were tolerated as long as their kings conformed to the cultural norms of Babylonian kingship. The country continued to function and prosper under Persian and later Macedonian rulers. Although most historical accounts take the death of Alexander as the end point of Mesopotamian history, there was no sudden end in 332 B.C. Instead, there was a slow decline in some cities, eclipsed by new foundations and centers of power such as Seleucia; others continued to exist and even flourish, well into the Parthian period. Only when the whole region became marginalized between Rome and Persia did the old cities become deserted, the haunts of jackals and ghosts.

WRITING

Written history in Mesopotamia began in the so-called Early Dynastic period III (c. 2600–2350 B.C.). At this time, the country was divided into a number of individual cities with their surrounding territories. The first inscriptions were little more than the names and titles of men who achieved positions of authority and who dedicated precious objects to the patron gods of their cities. It appears that many of these persons owed their influence and wealth to military success, often at the expense of neighboring cities. Their donations seem to have been partly an attempt to justify their actions to the deities. The written message linked the gift to the donor and his deed and transmitted his name to posterity.

Although writing had been invented in the Uruk period (late fourth millennium), it then served only administrative purposes and did not encode speech of any particular language. It was instead a communicative system, rather like the mathematical or chemical formulas of our own time, which are understood rather than read by those accustomed to their use. The archaic writing had served to record economic transactions within a much wider

geographical context than southern Mesopotamia—including the Susiana in southwest Iran, southern Anatolia, northeast Syria, and northwest Iran. When this network collapsed at the end of the fourth millennium, the acquired literary expertise was adapted not just to suit bureaucratic control but also to become an ideological tool—able to preserve the memory of individuals whose deeds were giving shape to “history.”

Although it appears that the main centers of scribal education were in Mesopotamia and that the primary language referent for cuneiform systems was Sumerian, it could also be used in other linguistic contexts, such as the Semitic language spoken at the Syrian city of Ebla, or the Akkadian used within Mesopotamia itself. In fact, the cuneiform tradition is marked by bilingualism (Sumerian and Akkadian).

Most scribes at all times were employed as clerks to serve the administration of large productive “households” (including temples and palaces), while a much smaller but important sector was engaged in transmitting the arts of writing and to compose works that became the cornerstones of Mesopotamian cultural values: most important, lists of words and signs that composed the conceptual framework and ordering principles of the linguistic and tangible universe.

The memorialization of kings and their deeds was another genre of writing, as were compositions concerning the religious domain—hymns, prayers, myths, and rituals. In time the repertoire expanded to include the recording of divinatory material (from omen collections to astronomical data) and similar “scientific” enquiries (medical texts, technological treatises, etc.). It was a characteristic of Mesopotamian civilizations to foster an awareness of a very long historical continuity “from the days of old” to the “distant days” of the future. The early system of reckoning time by naming a year after a significant event no doubt contributed to this pronounced awareness of history as unfolding in an ordered sequence of dynasties and regnal years. In fact, the chronological system modern historians use is based on such ancient records and chronicles.

The writers of king lists and royal inscriptions, annals, and chronicles throughout the two and a half millennia of Mesopotamian historiography have also bequeathed us a particular view of their past—one in which kings either maintain the status quo or enlarge their territories through military campaigns, and found, continue, or challenge dynastic lines; one in which the main threat to internal stability is the “incursion” of foreigners, most often of nomadic origin. Such were the main themes of official inscriptions, and their ideological purpose was to perpetuate the hegemonic claims of kingship. The problem is also that in difficult and, for modern historians, “interesting” times, writing almost invariably ceased, and the “other side” (the tribal immigrants) was illiterate.

The best-documented and historiographically richest period was the time when Babylonia and Assyria had intense and controversial relations, in the

first half of the first millennium. In each country, scribes were at work not only to record the campaigns of kings but to comment on their actions in a critical manner according to their “national” bias. In more recent years, historians have also begun to analyze the vast corpus of administrative texts for their historical relevance. Modern data-processing techniques have been very useful in dealing with such sources, and in the years to come, the seemingly mundane content of economic archives will become important analytical tools for the interpretation and understanding of Mesopotamian history.

ARCHAEOLOGY

Archaeological artifacts play an important role for the understanding of Mesopotamian civilization. All the cuneiform tablets, almost all architectural remains, all objects and artworks had to be retrieved from the ground. The exploration of the Ottoman Middle Eastern territories began in the early 19th century, in the wake of the Egyptian discoveries during the Napoleonic Wars. Diplomats and merchants connected to the East India Company and stationed in the Middle East explored the rural hinterland, mapped the countryside, and wrote about their adventures in the exotic oriental regions; they also visited and described the often extensive ruin mounds. Claudius Rich, for instance, even managed to identify the sites of Babylon and Nineveh.

Systematic excavations were started by the French in 1842. Consul Paul-Émile Botta, stationed at Mosul, targeted the mounds of nearby Kuyunjik (ancient Nineveh) and Khorsabad where he hit upon the palaces of Assyrian monarchs. The huge winged bull figures that had guarded the ancient entranceways, as well as the fine carved limestone reliefs, caused a sensation when they arrived in Paris, and kindled a keen interest in further excavations. Austen Henry Layard, a British diplomat and explorer, chose to work at Nimrud, another Assyrian capital, and worked there from 1845 to 1851, as well as at Nineveh. His finds were sent to the British Museum, which had partly sponsored his excavations, and also to various private collectors who had raised funds.

Until the promulgation of the Antiquities Law by the Ottoman government, many other Mesopotamian sites were dug up for their increasingly valuable antiquities by local people. From the 1870s onward, permits were needed and expeditions acquired a more scholarly remit. However, scientific excavation techniques adapted to the conditions of Mesopotamian soils developed only with the German missions to Babylon and Assur, conducted by Robert Koldewey and Walter Andrae from 1899 to 1917. They trained local workmen in the correct techniques of working with fragile mudbrick and made reliable

records of find spots. After World War I, the Iraq Museum was funded by Gertrude Bell, and new regulations were drawn up that allowed foreign expeditions a share of their discovered artifacts.

With Iraqi independence in 1932, all new findings became the property of Iraq, administered by the Directorate of Antiquities. International expeditions continued. At the southern site of Uruk, for instance, the Germans were engaged in a long-term project; Sir Leonard Woolley worked at Ur, the French at Telloh, and American teams at Nippur and the Diyala valley. Iraqi teams supervised by the British archaeologist Seton Lloyd dug at Eridu. The interwar period was the most productive era for Mesopotamian archaeology. The establishment of stratigraphic sequences of the most important sites facilitated the comparative chronology of otherwise undated artifacts. The Iraqi government under Saddam Hussein promoted excavations of pre-Islamic antiquities, which were accredited with ideological importance for the Iraqi nation. There was also strict supervision of sites, both well known and as yet unexcavated.

Sanctions imposed on Iraq in the aftermath of the invasion of Kuwait in 1990 led to widespread looting, especially in the south, where the population was most affected by poverty. The American-led occupation of Iraq in 2003 contributed to even more extensive looting and ransacking of archaeological sites. The looting of the Iraq Museum resulted in the loss of more than 5,000 cylinder seals and items of jewelry, archaeological records, and larger artifacts. At the time of writing, few sites are adequately protected and illegal excavations continue to satisfy the demand for Mesopotamian antiquities. The loss for the scholarship is incalculable. Not only do objects disappear into private collections but sites are disturbed and contaminated by inexperienced digging with heavy machinery, no stratigraphic sequences are established, and no recordings are made. While proper archaeological excavations in Iraq are largely suspended for the time being, various teams are working in the neighboring countries of Turkey, Syria, and Iran, and expand the knowledge of Mesopotamian sites in these regions.

CHRONOLOGY

Dating in ancient history remains uncertain and conjectural. It rests on a system of relative chronologies that take into consideration the stratigraphic sequence of archaeological sites, written sources appearing in such contexts, references to astronomical events, and links with later, established chronologies of Greece or Rome. Dates for the first millennium are more reliable because of the regular astronomical observations recorded by Babylonian scholars and because of the Assyrian eponym lists that can be

correlated to regnal years of Assyrian kings. All earlier dates are less secure. In fact, there are three different systems that are based on the interpretation of a group of astronomical texts known as the Venus Tablet of Ammi-saduqa, which list first and last visibilities of the planet Venus during the reign of King Ammi-saduqa of Babylon. Three dates are possible for his accession to the throne: 1702, 1646, or 1583 B.C. This gives a “high,” “middle,” and “low” chronology. Although many scholars prefer the high chronology, the middle chronology is used in most of the general historical works, as in the present volume. There is also a fourth chronology that on the basis of pottery evidence dates Ammi-saduqa to 1550. Dates for the third millennium are even less clearly established.

The Dictionary

ABA-ENLIL-DANA (AHIQAR). High-ranking official under the **Assyrian kings Sennacherib** and **Esarhaddon** in the seventh century B.C. Under his **Aramean** name, Ahiqar, he became famous as the author of a series of wisdom texts written in Aramaic.

ABI-ESUH (REIGNED C. 1711–1684 B.C.). King of **Babylon** in the **Old Babylonian period**, son and successor of **Samsu-iluna**. Ruling during a period that saw incursions from **Kassite** groups and armed strife with **Eshnunna**, he was concerned with strengthening his borders by building fortresses to defend his kingdom.

ABISARE (REIGNED 1905–1895 B.C.). King of **Larsa** and successor of **Gungunum**. He won a victory against Larsa's main rival, the city of **Isin**, in the 10th year of his reign.

ABI-SIMTI. Wife and queen of **Shulgi** (reigned 2094–2047 B.C.), the king of **Ur** during the **Third Dynasty of Ur**. She bore an **Akkadian** name and was likely to have been from an **Amorite** background. She continued to exert influence during the reigns of her husband's successors, first **Amar-Suen's** and then that of her son **Shu-Sin**.

ABU SALABIK. Archaeological site near **Nippur**, in central Mesopotamia, excavated by Americans in 1963 and 1965, and by a British team directed by Nicholas Postgate in the 1970s. The most significant find was an **archive** dating from the **Early Dynastic period** that also contained fragments of literary texts.

ACHAEMENID EMPIRE. **Persian** dynasty (c. 550–330 B.C.) named after the historically obscure founder Achaemenes. **Cyrus II** (reigned 559–530) laid the foundation of the first Persian empire. He began by defeating the **Median king** Astyages, which gave him control over most of Iran. In 539 he conquered **Babylon** and thus took possession of the **Neo-Babylonian** territories (all of Mesopotamia, most of Anatolia, and Syro-Palestine). His son, Cambyses II (reigned 530–522), added **Egypt**. During the rule of **Darius I**, who conquered parts of northern India, the Achaemenid empire reached its greatest expansion. However, as famously recorded by Greek historians, Darius's attempts to expand westward into the Aegean were thwarted by fierce opposition. He was also responsible for the relocation of

the capital to Persepolis, where he embarked on an ambitious building program. Subsequently, numerous rebellions and internal political rivalry signaled the disintegration of the empire. **Alexander** of Mazedon (“The Great”) dealt the final blow. He defeated **Darius III** at Issos in 333 B.C. and thereafter conquered most of the Persian-held territories.

ADAD/ADDU/HADAD. North-Mesopotamian weather **god** responsible for both winter rains that ensured a good crop and also devastating storms. One of his main centers of worship was **Aleppo** in northern Syria. He was one of the most important deities in **Assyria**, where many **temples** were dedicated to him. At **Assur** there was a double sanctuary for him and his father, **Anu**. He often appears in **royal inscriptions** as a warrior defending the Assyrian **army** and was also invoked in **curses**. *See also* ISHKUR.

ADAD-APLA-IDDINA (REIGNED 1082–1070 B.C.). Eighth **king** of the **Second Dynasty of Isin**, successor to Marduk-shapik-zeri. According to the New **Babylonian Chronicles**, he was a usurper, although he seems to have been recognized as legitimate and did use the traditional Babylonian royal titles. According to **Assyrian** sources, he was appointed as ruler over **Babylon** by the Assyrian king **Ashur-bel-kala**, whose daughter he married. Although his own inscriptions mention mainly peaceful events, such as **temple-building** projects, the Babylonian Chronicles record civil unrest caused by **Arameans**. There also seems to have been some military activity by the Assyrians.

ADAD-NIRARI I (REIGNED 1307–1275 B.C.). **King** of **Assyria**, son and successor of Arik-den-ili. His reign is historically well-documented. His **annals** contain much material about his military campaigns, and other written sources exist, such as **chronicles**, edicts, and letters to other sovereigns. The greatest military achievement of this king was defeating the powerful state of **Mitanni** (also known as Hanigalbat), whose ruler, Shattuara, he took prisoner before allowing him to return to govern his country as an Assyrian vassal ruler. When the death of Shattuara triggered an anti-Assyrian revolt, Adad-nirari marched against Mitanni, destroyed numerous **cities**, and deported parts of the population. He also extended the southern frontier toward **Babylonia**, defeated the **Kassite** king of **Babylon**, and collected **tribute** from **tribes** and people in the area. The prosperity and stability of his reign allowed him to engage in ambitious building projects, building city walls and canals and restoring **temples**.

ADAD-NIRARI II (REIGNED 911–891 B.C.). **King** of **Assyria**, son and successor of **Ashur-dan II**. The **Synchronistic History** reports that he defeated the **Babylonian** king Shamash-mudammīq. Hostilities between the two states ceased when a peace agreement was drawn up between Nabu-

shuma-ukin I, the new Babylonian king, and Adad-nirari in 891. They also took each other's daughters in **marriage**. The good relations between Assyria and Babylonia that this alliance initiated were to last some 80 years.

ADAD-NIRARI III (REIGNED 810–783 B.C.). King of **Assyria**, son and successor of **Shamshi-Adad V**. A noteworthy feature of his reign is the fact that during his early years on the throne, military campaigns were conducted by his generals, perhaps due to the young age of the king. The first expedition led by Adad-nirari himself (in 805) was directed against Syria, where he collected **tribute** from local rulers. The second took him to **Babylonia**, where he attacked Der, although he seems also to have made efforts to restore peace and order by bringing back Babylonian **deportees** and statues of **gods** kept in Assyria. Although he maintained the borders of the empire as they had been under **Shalmaneser III**, toward the end of his reign Assyria began a period of decline.

ADAD-SHUM(A)-IDDINA (REIGNED C. 1222–1217 B.C.). Kassite king of **Babylon** during the time of **Assyrian** domination under **Tukulti-Ninurta I**. Like his predecessor, Enlil-nadin-shumi, he suffered attacks from **Elamite** forces who took the cities of **Isin** and Marad.

ADAMS, ROBERT MCCORMICK (1926–). American archaeologist and anthropologist who in the 1950s and 1960s pioneered large-scale and longtime surface surveys, using arial photography and historical records to study patterns of land use, settlements, and urbanization in Iraq. His publications on Mesopotamia include *Heartland of Cities* (1962), *Land behind Baghdad* (1965), and *The Uruk Countryside* (1972, with H. J. Nissen).

ADDA-GUPPI' (FL. C. 649–547 B.C.). Mother of the **Babylonian king Nabonidus**. According to a commemorative stele that her son erected after her death, she was born in the 20th year of **Ashurbanipal** (649) and subsequently rose to a position of influence at the court of **Babylon**, particularly under the kings **Nabopolassar**, **Nebuchadrezzar II**, and Neriglissar. Nabonidus stresses the fact that she was much devoted to the moon **god, Sin** of Harran. This does not prove, however, as often assumed, that she was a **priestess** of this deity. She lived to a ripe old age of at least 102 years and died in the ninth year of her son's reign.

ADMINISTRATION. The necessity of keeping reliable and durable records of complex economic transactions was the primary motive for the development of **writing** in Mesopotamia. The wide network of exchange relations and central control that characterized the **economy** of the **Uruk**

period (mid-fourth millennium B.C.) led to the formation of bureaucratic structures and systems of bookkeeping, which assigned responsibility of particular sectors to administrative units supervised by “heads of department” within a hierarchical order. In all subsequent historical periods, this fundamental structure of the administration remained the same, although with varying degrees of complexity. All major institutions that engaged in production needed an administrative apparatus to keep track of wages, rations, and other costs incurred for employees, as well as of quantities of goods expended and produced. Hence archaeologists have discovered administrative archives of private estates and “firms,” in addition to those attached to **temples, palaces**, and other forms of state organizations.

The more centralized the state’s control over resources became, the greater the need for administrative records. The greatest concentration of such sources in the second millennium belongs to the time of the **Third Dynasty of Ur**, with its highly developed system of **taxation**.

The Neo-Assyrian state **archives** recovered from the imperial capitals also number thousands of tablets and give testimony to the efficiency of Assyrian administration. High officials were often recruited from elite families. In **Assyria** a significant proportion were **eunuchs**.

From the **Neo-Babylonian period**, there are temple archives that give details of agricultural production, as well as archives from private companies, sometimes spanning several generations, that specialized in loans and investment in various economic sectors.

ADOPTION. Adoption is known from legal contracts and **law** codes dating from the second and first millennia B.C. The most common form was to take an individual to be a son or daughter, but sibling and parental adoption was not unknown. Written documents, duly witnessed, stated the terms and nature of the relationship being entered into and, sometimes, the penalties incurred for the repudiation of the contract.

One of the most common reasons for adoption was the desire to secure support in old age and the provision of a funerary cult for the adopter after death. In exchange, the adoptee could inherit property. Such arrangements were generally conducted between adults. Infants or children could be adopted to legitimize their descent. Sequestered high-status **women** (such as the **naditu**) who were barred from having children could adopt young women to look after them in old age and to make them independent of the paternal kin group. Legal tablets show that litigation over adoption was not uncommon.

AGRICULTURE. Agriculture formed the basis of the Mesopotamian economy. The first steps toward a managed production of cereals were taken as early as the 10th millennium B.C. in Syria, in the area known as

the **Fertile Crescent**, which receives sufficient natural rainfall for cultivation. Wheat and **barley** were the earliest domesticated cereals; other plant species used for **food** were pulses, such as lentils and chickpeas.

In the northern area of Mesopotamia (**Assyria**), which forms part of the Fertile Crescent, crops could be grown in the vicinity of the rivers. Farther south, in **Babylonia**, there was not enough rain to sustain cereal production unless the fields were watered through irrigation, but the rich alluvial soil accumulated by the **Tigris** and **Euphrates** rivers proved to be much more fertile than in other Near Eastern regions. By the seventh millennium B.C., the alluvial plains began to be cultivated, and by the fourth millennium, the first **cities** appeared in response to the need for an efficient agricultural **administration**. The first documents, pictographs written on clay, concerned the allocation of labor for fields and the distribution of the products. By the third millennium, large institutions, such as **temples** and **palaces**, owned and managed most of the arable land, employing a significant proportion of the urban population, who worked for rations or as sharecroppers. By the second millennium and in later periods, private ownership of land was relatively more common.

The most important cereal was the salt-tolerant barley. Oil-rich plants, such as sesame and linseed, were also much used, as were vegetables such as onions and garlic. The date palm was by far the most essential tree, as much for its timber as for its fruit, which was a vital source of sugars and vitamins.

Fields were worked with teams of oxen (initially two, later four) and a crew of laborers. For the annual harvest in spring, hired hands augmented the labor force. The produce was stored in special granaries and storehouses and distributed as rations, sold, and kept for seed. As long as the fallow principle was maintained and fields were allowed to recover their fertility after having been irrigated and planted, the land was able to yield substantial surplus. These rich grain harvests thus provided the foundation of Mesopotamian urban civilization.

With rising populations and pressure from the central government, too-intensive cultivation could drastically affect the carrying capacity of the land, and the weakened fields could only produce a fraction of the normal crop, which was vulnerable to pests and diseases. Famines and epidemics were therefore not uncommon and are described in various literary compositions.

Animal husbandry was more important in those regions that boasted less fertile soil. Sheep and goats can be kept in marginally productive areas by moving herds from place to place. Cattle and pigs were generally kept in one place. While the former could be profitably managed by **nomadic** and pastoralist groups who moved with their herds in search of pasture, cattle and pigs were raised by special organizations, such as **temples** and **palaces**. During the time of the **Third Dynasty of Ur**, the city of Puzrish-Dagan, not

far from **Nippur**, was the livestock center of the state (*see* DREHEM).

Domestic animals were prized because of their wool and hides, as well as for their milk. Meat, rarely consumed by the nomads, formed an important part of the sacrificial repasts in Mesopotamian temples. Various **Sumerian** myths and poems concern the competition between the “shepherd,” who is portrayed as uncouth and uncivilized, and the “farmer,” who is the quintessential Mesopotamian, refined and urban.

AKALAMDUG (REIGNED C. 2600–2580 B.C.). King of Ur. Although his name does not feature in the **Sumerian King List**, he was identified as king of Ur by an inscription on a seal discovered in the “Royal Graves of Ur,” excavated by **Sir Leonard Woolley**, in tomb no. 1050.

AKKAD (ALSO READ AGADE). 1. As a toponym, this refers to the yet undiscovered city in northern **Babylonia**, said to have been founded by **Sargon of Akkad**, who made it the capital of the **Akkadian Dynasty**. The city’s rise and downfall were the subject of a well-known **Sumerian** literary text that blames the sacking of the city by foreign invaders known as the **Guti** on royal arrogance. Some archaeologists suggest that the remains of Akkad are to be found in the vicinity of Baghdad.

2. As a geographical term (during the late third and early second millennia B.C.), this denoted the northern part of the country, from the point where the **Tigris** and **Euphrates** come closest to the southern part of the Jezirah. It was used in distinction to the southern part, known as **Sumer**. From the time of the **Third Dynasty of Ur**, “Sumer and Akkad” denoted all of Babylonia.

AKKADIAN. As a modern linguistic term it refers to various Semitic dialects spoken in Mesopotamia over a period of 2,000 years (such as Old Akkadian, **Babylonian**, **Assyrian**). In antiquity, scribes differentiated between texts written in the “tongue of Akkad” from those written in the “tongue of the land” (i.e., **Sumerian**). The earliest texts written in Akkadian date from the mid-third millennium B.C. *See also* DELITZSCH, FRIEDRICH; EBELING, ERICH; GELB, IGNACE JEREMIAH; LAMBERT, WILFRED; LANGUAGES; OPPERT, JULES; RAWLINSON, HENRY CRESWICK; SODEN, WOLFRAM FREIHERR VON; WEIDNER, ERNST; WRITING.

AKKADIAN DYNASTY (C. 2340–C. 2154 B.C.). Dynasty founded by **Sargon of Akkad**. Sargon built on the success of **Lugalzagesi** of **Uruk** in unifying “**Sumer** and Akkad”; having defeated Lugalzagesi in battle, he established his own capital in the as yet unidentified city of **Akkad**. According to his own inscriptions, he campaigned widely beyond Mesopotamia and secured access to all the major **trade** routes, by sea and

by land. His successors, **Rimush**, **Manishtusu**, **Naram-Sin**, and **Shar-kali-sharri**, all faced considerable opposition from the **Sumerian cities** that they more or less ruthlessly suppressed. After the reign of these five **kings**, a period of anarchy and disruption followed, probably caused to a great extent by the **Gutian** invasion. The much reduced kingdom of Akkad enjoyed greater stability under the reigns of Elulu (c. 2198–2195), Dudu (c. 2195–2174), and Shu-Turul (c. 2168–c. 2154).

Various mountain tribes, referred to as the Gutu in the **Sumerian King List** and other sources, had established themselves in the vicinity of Akkad, perhaps initially as mercenaries. According to the Sumerian King List, Akkad was destroyed by Ur-nigin of Uruk, who established another, short-lived dynasty that was in turn terminated by the “Gutian hordes.”

ALEXANDER THE GREAT (FL. 356–321 B.C.). Macedonian conqueror, son of Philip II of Macedon. He set out to challenge the supremacy of the **Achaemenid** Persians in Ionia and ended up with an empire that for the first time in history linked Europe with Western and Central Asia. He achieved this by a series of campaigns with a relatively small but highly disciplined force of fighters in which he provoked pitched battles with the Persian army, fielding many thousands of men. He won his first victory at the river Granicus (334), which gave him access to the Cilician Gates. He then confronted the massed forces led by the Persian **king Darius III** at Issos (333) and inflicted another defeat on the Persians. Darius escaped to **Babylon** while Alexander continued southward to Syria and Palestine, where most of the cities surrendered voluntarily. Alexander then invaded **Egypt** and was enthroned as pharaoh in 331. Darius had meanwhile assembled a vast army in **Babylonia**. Another battle was fought near Gaugamela, and Alexander triumphed again. He then marched to Babylon, where the satrap Mazeus surrendered. Darius had escaped to Media, and Alexander set out for Persepolis, the dynastic center of the Achaemenid empire, which he looted of its wealth before setting fire to the **city**.

Darius was assassinated by his own people, and Alexander continued his conquest farther east across the Iranian highland and into Bactria, where he married the daughter of the vanquished king in 324. He pressed on into India, reached Pattala in 325, and, while part of his troops returned by sea, he marched back to Persia. The return of the fleet and the conquest of India were celebrated at Susa, and he took the eldest daughter of Darius in **marriage**. Alexander planned the conquest of Arabia and set out for Babylon, where preparations were made for a seaborne invasion. On 31 March 323, he caught a fever from which he was never to recover. He died on 10 June, not yet 33 years old. His untimely death sparked intense and prolonged rivalries for his succession and the division of the enormous territories he had conquered. *See also* ANTIGONUS MONOPHTALMOS; SELEUCID DYNASTY; SELEUCUS I NICATOR.

AKITU. Akkadian term for the New Year festivities that took place around the spring equinox, when the crops of the winter **barley** were harvested. Such celebrations occurred in most Mesopotamian **cities** and have an ancient origin; those performed at **Babylon** are known best because of textual evidence. The week-long **festival** involved the participation of all the major Babylonian deities, represented by their cult statues, although the protagonist was the **god Marduk**, whose role as founder of cosmic order was emphasized by the recitation of the Epic of Creation. The festival was also an important opportunity to affirm and legitimize kingship, symbolized by the grasping of Marduk's hand by the ruler. *See also* RELIGION.

ALEPPO (HALEB). City in Syria, situated between the rivers **Euphrates** and Orontes, a position beneficial to **trade**, with access to north–south and east–west trade routes. During the early second millennium it was the capital of the kingdom of **Yamhad**, a state that controlled an area from the Mediterranean Sea to the Middle Euphrates valley and which was allied to the Mesopotamian Middle Bronze state of **Mari**.

AMARNA CORRESPONDENCE. “Tell el-Amarna” is the modern name for Akhetaten, the **city** founded by the Egyptian pharaoh Amenophis IV (also known as Akhenaten), who ruled from 1376 to 1336 B.C. Archaeologists discovered an important **archive** of **cuneiform** tablets, some with Egyptian glosses, which also included documents from the reign of Amenophis III (reigned c. 1387–1350). The majority are **letters** and reports written by local governors and petty rulers of the Levantine coast that was under Egyptian control. Of special interest are the 43 missives sent by **kings** of independent states, such as **Babylonia**, **Mitanni**, and **Assyria**, which concern the reciprocal exchange of prestigious commodities such as **chariots**, **gold**, and various artifacts, as well as marriageable princesses.

AMAR-SUEN (ALSO AMAR-SIN; REIGNED 2046–2038 B.C.). Third **king** of the **Third Dynasty of Ur**, son of **Shulgi**. During his nine-year reign, he benefited from the economic and political stability that his father had established, and he gave most of his attention to the building and renewal of sacred buildings, such as the Apsu **temple** at **Eridu**. He also had to defend his realm, according to his **royal inscriptions**, which mention various military campaigns against little-known targets. *See also* ABI-SIMTI.

AMEL-MARDUK (BIBLICAL FORM OF THE NAME EVIL-MERODACH; REIGNED 561–560 B.C.). King of **Babylon**, son and successor of **Nebuchadrezzar II**. He reigned only for a short time and was deposed by his sister's husband, Neriglissar. According to later sources, such as a fragmentary Babylonian epic, he deserved this fate because he

had not listened to his counselors and had neglected the Babylonian temples.

AMMI-DITANA (REIGNED 1683–C. 1640 B.C.). King of **Babylon**, of the **First Dynasty of Babylon**, son and successor of **Abi-esuh**. His 37-year reign was generally peaceful and his **year names** record primarily the dedication of cult paraphernalia and the maintenance of **temples**. The deterioration of the **economy**, partly due to a shift of the **Euphrates** riverbed, can be gleaned from references to general debt-releases (*mesharum*).

AMMI-SADUQA (REIGNED C. 1646–1626 B.C.). King of **Babylon**, 10th and penultimate ruler of the **First Dynasty of Babylon**, son and successor of **Ammi-ditana**. During his reign, advances in **astronomical** observations led to the recording of the rise times of the planet Venus and its visibility on the horizon, according to a tablet discovered in the library of the **Assyrian** king **Ashurbanipal**. Deteriorating **agricultural** output led to general impoverishment. The publication of an edict annulling the debts of impoverished cultivators attempted to stem this problem, but there was widespread unrest and many cities fell into decline. *See also MESHARUM.*

AMORITES. The word is derived from the **Akkadian** *amurru*, which designated Semitic-speaking **tribal** groups who toward the end of the third millennium B.C. settled in increasing numbers in northern and middle **Babylonia**. Their influx is thought to have contributed to the downfall of the **Third Dynasty of Ur**. Some tribes became assimilated and formed chiefdoms and kingdoms in Mesopotamia and Syria in the second millennium B.C. (e.g., **Mari**, **Yamhad**, **Tuttul**); others retained a nomadic or seminomadic existence as pastoralists. The **First Dynasty of Babylon** was founded by an Amorite.

AMURRU. 1. Original home of the **Amorites**. 2. Semitic **god** and tutelary deity of the Amorites whose name first appeared in the personal names of people during the **Akkadian** period. He had at least three **temples** in **Babylon**. To assimilate this “man of the desert,” he was officially married to a **Sumerian** goddess: one myth describes how he wooed and won the daughter of Numushda, much against the latter’s initial misgivings about someone belonging to a people “who do not know bread.” In the Babylonian tradition his wife was Belet-Seri (“Lady of the Desert”). 3. The term *amurru* was also used to designate the language and at later times the western border of Babylonia.

ANATOLIA. The word derives from the Turkish *Anadolu* and describes the highlands between Lake Van and the Aegean Sea. The land lies within the

zone of the **Fertile Crescent**, with enough winter rainfall to facilitate dry farming, and is home to various wild varieties of cereals that were domesticated as early as the 10th millennium B.C. The **Tigris** and **Euphrates** rivers both originate in the mountains of Anatolia, and their valleys formed a natural link to the lowlands of Mesopotamia. **Neolithic** sites, such as Çatal Hüyük, Hacilar, and Çayönü, demonstrate the rich material culture of these settled communities of the seventh to sixth millennia B.C.

The country had a wealth of **metals**, such as **silver**, **gold**, and **copper**, and third-millennium Bronze Age sites, such as Alaça Hüyük, show the considerable skills of local smiths and metalworkers. These metals were also the centerpiece of a lively **trade** with Mesopotamia. In the early second millennium, merchants from the city-state of **Assur** established trade colonies throughout Anatolia, exchanging **tin** and **textiles** for silver.

The Assyrians introduced **cuneiform** writing, which was subsequently adopted for the administrative needs of the **Hittites**, who established a state and eventually an empire in the early second millennium. It was a Hittite raid by **king Mursili I** that brought the **First Dynasty of Babylon** to an end. Thereafter the Hittites competed with **Assyria**, **Mitanni**, and **Egypt** over access to trade routes and territories in northern Mesopotamia and Syria, which involved intense diplomatic activity, as reflected in the **Amarna** letters, as well as violent confrontations in pitched battles. The general disruption and waves of unrest associated with the arrival of the **Sea People** in the 12th century led also to the collapse of the Hittite empire. In the first millennium, Anatolia was divided into many smaller states, subject to disruptive incursions from nomadic horse warrior **tribes** and the colonial policy of the Assyrian, the **Babylonian**, and the Persian empires.

ANDRAE, WALTER (1875–1956). German archaeologist who, together with **Robert Koldewey**, pioneered scientific methods of excavations. As a trained architect, he was particularly successful in excavating monumental **architecture**, and he co-directed with Koldewey the German excavations of **Assur** (1903–1914). His monographs of the work done on the Anu-Adad Temple (1909), the fortifications (1913), and the Ishtar Temple (1922) set new standards in documentation of architectural remains. He also published the chronologically highly important stone stelae, which recorded the names of Assyrian **eponyms**. His summarizing and accessible book about the Assur excavations (*Das wiedererstandene Assur*, 1938) popularized Assyrian archaeology. From 1921 to 1951 he was director of the Near Eastern Department of the Pergamon Museum in Berlin and taught architectural history at the Technical University in the same city.

ANIMAL HUSBANDRY. *See* AGRICULTURE.

ANNALS. A type of royal inscription that was particularly common in **Assyria**, apparently introduced by **Adad-nirari I** at the beginning of the 13th century B.C. Written in a literary style, they were yearly reports of the **king's** major activities, primarily of military expeditions and building works. Annals are of considerable historical importance, as they allow for greater precision in establishing the chronological sequence of events in a particular reign, although the often stereotyped phraseology of the texts reminds us that they were not considered to be unbiased historical records but served to underpin the ideological basis of Assyrian **kingship**.

ANTIGONUS MONOPHTALMOS (REIGNED 321–301 B.C.).

Macedonian general, chief of cavalry of **Alexander the Great**, satrap of Phrygia, and later **king**. In the aftermath of Alexander's death, he competed with the other generals for a share in the succession. Antigonus managed to dislodge **Seleucus I** from **Babylon**, and for four years (312–308) they engaged in bitter warfare that ravaged the country. Antigonus's brutal behavior toward the Babylonian population was described in the **Babylonian Chronicles**. He was finally defeated by Seleucus and at 81 years of age was killed in the battle at Ipsus in Phrygia.

ANU (AN IN SUMERIAN). Mesopotamian **god** whose written name expresses the notion of the heavenly deity. The sign dingir could be read as "An" and functioned as determinative to introduce the name of any god or goddess. An appears in some Sumerian mythical texts as a younger-generation demiurge who orders the universe and decrees the fate of gods and men. He could also form a cosmic union with a female deity of the earth (Urash, or Ki) and thus become the source of life.

The lists of divine names, which were first compiled as early as the late fourth millennium B.C., generally begin with An. In many other texts, he is seen as the head of the Mesopotamian pantheon as "the great An" or "Father An." His son **Enlil** eventually assumed some of Anu's traits and functions, such as the bestowal of **kingship**. In the north, Anu had affinities with weather gods and hence associations with fertility. The cult of Anu revived in the Hellenistic period at **Uruk**, where he had a large **temple** since the **Uruk period**.

AQAR-QUF. Archaeological site, some 30 kilometers west of Baghdad. It was excavated by a British-Iraqi team under **Seton Lloyd** and Taha Baqir (1942–1945). *See also* DUR-KURIGALZU.

ARABS. Semitic, tribally organized people subsisting through seminomadic and **nomadic** pastoralism and **trade**. They were able to expand throughout the Arabian peninsula after the domestication of the **camel** in the second millennium and facilitated trade across this inhospitable region. Arab

groups were first mentioned in the first millennium B.C. in **Assyrian** records. Arab contingents, for instance, fought in the great coalition against **Shalmaneser III** in 853. An Arab queen, Samsi, fought against **Tiglath-pileser III** in 732 but was forced to pay tribute. Reliefs from **Ashurbanipal's** palace at **Nineveh** show Assyrian troops doing battle against Arabs on camels in retaliation for their support of the **Babylonians**.

ARAMEANS. A group of peoples speaking a western Semitic language (Aramaic). They were originally tribal pastoralists and emerged in the middle of the second millennium B.C. to form states in Syria and northern Mesopotamia. They first appeared in **Assyrian annals** around 1300 B.C. as "hordes of Ahlamu". **Tiglath-pileser I** (c. 1110) defined them as Arameans (*ahlame armaya*). They were much feared in **Babylonia**, together with another tribal people known as the Suteans, for raiding and pillaging the country. Arameans were spread out over large areas of Syria and divided into several tribal groupings. They were frequently in conflict with the Assyrians, either because they raided Assyrian territory or because their various petty kingdoms had become targets of Assyrian expansion. Some Aramean groups suffered mass **deportation** as a punishment.

Nevertheless, their language, Aramaic, became the most widely spoken and understood language in Western Asia since the eighth century B.C. and became the international language of commerce and diplomacy, not only within the Assyrian empire but also under subsequent empires, until the early centuries A.D. The Arameans adopted an alphabetic form of writing in the 11th century that was based on the Phoenician alphabet. Due to the perishable nature of their writing material, few original texts other than those engraved on stone or written on clay bowls and shards have survived.

ARCHITECTURE. The primary **building material** in Mesopotamia was the alluvial clay soil, which was shaped into oblong bricks that were dried in the sun. Native trees, such as date palm and poplar, served as roof timbers, as well as for doors, window frames, and shutters. Imported hardwood was used to span larger spaces in monumental buildings. In **Assyria**, locally available limestone was used to line interior walls within **palaces** and **temples** and was often engraved with reliefs showing ritual or military scenes.

The basic plan of a domestic building consisted of an enclosed, rectilinear courtyard and one or two rooms, each with a doorway. A growing family would add more rooms at the periphery of the courtyard and eventually enlarge the compound with additional courtyards. In periods of economic decline, the reverse process by subdivision was also practiced. In urban areas, individual houses were built closely together and little attention was paid to the exterior appearance of the building. The wealthier members of society had bathrooms waterproofed with bitumen, as well as

toilets and clay-pipe drains. The housing of the poor is typically poorly documented archaeologically, but it is known that they would have been housed in flimsily built reed huts and similar shelters.

Mesopotamian monumental architecture began in the **Chalcolithic** period, with buildings that combined several purposes: to safeguard and store agricultural surpluses and accumulated artifacts, to facilitate the exchange and distribution of these goods, to serve for social gatherings, and to express superior social status of the ruling elite. The buildings are characterized by the size of the main rooms and the height and thickness of the mudbrick walls; the careful orientation and planning, often showing symmetry and axiality; and the decorative features on the façade. In the historical periods, more specialized functions are discernible, partly because of written evidence in the form of foundation records, or because of characteristic features.

Temple buildings, for instance, were on the one hand large households, with many courtyards, dwellings and workshops, storage rooms, and kitchens, and as such share the same general layout as domestic architecture, but the ritual requirements of the cult also dictated a particular orientation and spatial sequence. Temple hymns describe that such buildings were considered endowed with vigor and vitality, that they “bellowed like bulls” and dazzled like the sun, perhaps a reference to the use of musical instruments during the liturgies and the whitewash of the walls, which were also typically corrugated by a series of vertically running niches. The maintenance and endowment of temples by **kings** was a means to legitimize their exercise of power, and **royal inscriptions** of all historical periods refer in more or less detail to projects of construction, renewal, and general fitting out with doors, statues, and ornaments.

Dilapidated temples were as a rule not destroyed but were carefully leveled and rebuilt on the same foundations, with the result that the temples were often on a higher level and rose above the city, serving as a landmark. A particular type of structure, a stepped pyramid accessible by ramps, was developed as a “high temple,” to serve for special rituals and possibly also for celestial observations (*see* ZIGGURAT). In southern Mesopotamia these were detached from the temple proper and set within a walled precinct, whereas in the north they could be accessed from the temple buildings.

Palaces were essentially large households and consisted of a more or less complex assortment of courtyards and surrounding rooms, some of which served the particular requirements of the palace as a center of political power, with representative spaces (throne rooms), **women’s** quarters, offices, and fortified and well-guarded access points. The palace of **Mari** is the best-preserved example, although its careful planning was unusual.

Funerary architecture was never as important in Mesopotamia as in **Egypt**, because Mesopotamians did not believe in being able to reproduce

elite living conditions after death. Some kings of the **Third Dynasty of Ur** were buried in vaulted graves, while Assyrian monarchs were laid to rest in subterranean chambers in the old capital of **Assur**. *See also* FUNERARY AND BURIAL PRACTICES.

ARCHIVES. Since the majority of **cuneiform** documents deal with bureaucratic matters, they were often kept together in the form of archives for future reference. They belonged in the main to the large institutions of Mesopotamia, the **temple** and **palace**, and detail expenditure and income, personnel, and hours worked by laborers, as well as legal contracts and correspondence.

From the third millennium B.C. are examples from **Shuruppak**, ancient Fara, that date from the 24th century B.C. The tablets date from a single year and detail the economic dealings of a large organization involving some 9,660 donkeys and 1,200 men. From about the same time are the archives of **Girsu**, the capital of the city-state **Lagash**, which furnished details about the centralized **economy** of the city-state. Particularly well known are the palace archives of **Mari** from the 19th century B.C. They entail the voluminous correspondence between the ruler and his various dependents and allies and thus form one of the main sources for the history of the Middle Euphrates region of the period.

From the time of the **Third Dynasty of Ur**, temple archives, especially from Ur and **Nippur**, as well as from provincial centers such as Puzrish-Dagan, often contained thousands of tablets and reveal the complex workings of these institutions.

With the **Old Babylonian period**, private archives belonging to private entrepreneurs begin to appear, alongside rarities such as the records of the “cloister” at **Sippar**, where unmarried and well-born **women** lived in seclusion to pray and look after their investments (*see* **NADITU**).

Of great historical importance are the state archives from **Assyria**, which preserved royal correspondence, especially from the time of the **Sargonids** (seventh century). They contain letters from scholars and diviners, astrologers and exorcists, as well as those pertaining to the administration of the empire.

From the **Neo-Babylonian** period, no comparable records survive, but there are important archives from temples such as that of the sun god at Sippar.

During the late period of Mesopotamian history, when Babylonia was ruled by the **Persians** and then the **Seleucid** kings, the main cuneiform sources come from the archives of large commercial firms, such as the Egibi or the Murashu families, who managed temple land, lent **silver**, and liaised with the crown. The very last archive collections come from the temple estates of Uruk. *See also* ADMINISTRATION.

ARMY. Information about military organization comes from pictorial and written sources. The earliest visual images, from the **Uruk period**, represent naked men with their arms tied behind their backs. It is not clear, though, whether such scenes refer to local prisoners or captives of warfare. Depictions of armed ranks in action can be seen on such monuments as the **Early Dynastic** “Stele of Vultures” (*see* EANNATUM) or the “Standard of Ur.” They show soldiers protected by leather coats, wearing caps and helmets, and wielding spears. Their leaders ride in wooden chariots with solid wheels, driven by sturdy donkeys. On the stele commemorating the victory of **Naram-Sin** of **Akkad** over the Lullubi, his men ascend a steep mountain while the enemies are trampled underfoot or fall down the precipice. Naram-Sin carries a large bow.

Much more detailed and numerous are the representations on **Neo-Assyrian** palace reliefs that were meant to impress local and foreign visitors alike with the efficiency and determination of the Assyrian army. Scenes of camp life, with portable kitchens, tents, and baggage trains, showing soldiers at rest, are interspersed with the more common depictions of army on campaign, marching across all manner of territories, or setting siege to enemy towns. They represent the different divisions, such as the chariotry, the cavalry, the archers, and the foot soldiers equipped with short and long spears. Some scenes concentrate on the result of victorious battles: smoking ruins of burned towns, heaps of corpses, and clerks recording the number of casualties from a pile of severed hands. Since wars were also meant to deter insurrections, the palace reliefs served as a reminder of how the Assyrian **king** could punish rebels; the accompanying texts explained who was flayed, impaled, beheaded, or otherwise mutilated and why.

The written sources of the **royal inscriptions** and **annals** customarily dwell on successful conquests and campaigns that brought fame and wealth to the kings who led them. In the third and much of the second millennia B.C., such campaigns were waged after the harvest, since the king only commanded a limited number of bodyguards in peacetime. **Sargon of Akkad**, however, claimed that “5,400 men ate with him daily,” which was an unusually large entourage and perhaps constituted the beginning of a standing army.

In the **Old Babylonian period**, numbers of fighting men are sometimes recorded; the **Mari** letters, for example, refer to 10,000 men, and **Shamshi-Addu I** boasts of 60,000 under his command. In the Old Babylonian times, fighting men could be conscripted for specific campaigns, or they were part-time professionals who could raise crops on crown land for their services. On campaign they were provisioned by the local population.

Since the army played such a vital role in the Assyrian empire, it was better organized than in earlier periods, with auxiliary contingents from subjugated territories. There were career possibilities in the Assyrian army, and senior officers could command a great deal of influence. Some

Assyrian generals were **eunuchs**. They could lead campaigns when the king was unable to do so himself. The center of the army since the time of **Shalmaneser III** was a huge building known as the *ekal masarti* (Review Palace) at **Kalhu** (Nimrud). This served as arsenal, training ground, and administrative headquarters. *See also* WARFARE.

ART. An urban society based on a surplus-producing **agriculture** developed in Mesopotamia in the fourth-millennium **Uruk period**. This allowed for professional specialization since a system of rations freed the individual from having to engage in food-procuring activities. Furthermore, social stratification and the concentration of wealth created a demand for specially produced items as a form of “conspicuous consumption.”

Craftsmen worked on imported metals and semiprecious and precious stones to produce prized artifacts that adorned the bodies and houses of elites, such as those found in the lavishly provided “royal graves” at **Ur**.

Pictorial representation was primarily developed on a miniature scale, as engraved on **cylinder seals**, which were widely used to authorize access to classified sectors of the **palace** or **temple** economy. Despite stylistic variations, the image repertoire was essentially stereotypical, relying on configurations of animals, humans, deities, or mythical creatures.

The requirements of the cult in Mesopotamian temples called for statues, either as cult images of deities or their symbols, which were made operative through magical ceremonies, such as the “Opening of the Mouth,” that transformed the man-made effigy into a receptive representation of the divine. Very few cult statues have survived since they were often made from precious materials. In the **Early Dynastic period**, wealthy individuals and rulers of city-states commissioned portrait statues made of stone to be placed within the temples to remain forever within the presence of the **gods**. These statues, often of seated men and sometimes **women**, were executed with great economy from a single block of hard stone and show an unusual concern with physiognomy. Large-scale sculptures in the round of rulers such as **Gudea of Lagash**, many of them exhibited in the Louvre in Paris, were originally intended for ritual purposes. Monumental art could also serve to memorialize military triumphs, such as the “Stele of Vultures” by **Eannatum** or the various stelae by the kings of the **Akkad period**.

The ideological function of art is most clearly visible in the orthostat reliefs of **Assyrian** palaces. Here the corridors were lined with stone slabs that showed scenes of the Assyrian **army** in its relentless pursuit of victory, while the throne rooms depicted the religious and ritual role of the king. The private quarters of King **Ashurbanipal** at **Nineveh** were adorned with reliefs of hunting, most famously of the king killing lions and other royal beasts. Fragments of wall paintings in Assyrian provincial palaces at **Mari** and **Dur-Kurigalzu** clearly show the primacy of line drawing with color as infill.

The ubiquitous Mesopotamian clay was the material for popular art, in the form of terra-cotta figurines and plaques, often mass-produced in molds. They show a wider repertoire than monumental art, including scenes from daily life, as well as demons, protective deities, copulating couples, and various animals. *See also* CRAFTS.

ASHURBANIPAL (ASHUR-BAN-APLI IN ASSYRIAN; REIGNED 668–627? B.C.). King of Assyria, son and successor of **Esarhaddon**. Despite rich and diverse historical sources, it is impossible to establish a generally acceptable chronology of Ashurbanipal's reign. In particular, the events of his last years and the date and circumstances of his death remain unclear.

Ashurbanipal succeeded to the throne when his father, Esarhaddon, died on campaign in **Egypt**. Moves by the pharaoh Taharka to regain independence had to be repelled by several campaigns, which culminated in the fall of Thebes. After this victory over the Kushite rulers, Ashurbanipal consolidated the Assyrian hold over the vassal states in Syro-Palestine. In the northeast, he repelled incursions by Mannaeans but maintained friendly relations with a number of buffer states in Anatolia.

Relations with **Elam** and **Babylonia** proved to be more difficult to resolve. While the Assyrian army was occupied with the Egyptian campaign, Elam staged an invasion of Babylonia that was repressed by quickly dispatched troops. When in the following years Elam experienced a dynastic struggle, a rival faction found asylum at the court of Ashurbanipal. Hostilities between Assyria and Elam resumed when the new king Teumman invaded the east Tigris region. The Elamites were decisively beaten at the banks of the river Ulai, and the decapitated head of their king was sent to **Nineveh**.

The most serious and traumatic confrontation of Ashurbanipal's reign was the rebellion of his brother **Shamash-shumu-ukin**, who had been chosen by Esarhaddon to be king of **Babylon**. The anti-Assyrian faction headed by Shamash-shumu-ukin initiated a bid for independence, supported by Elamites and **Arabs** as well as troops led by the ruler of the Sealand, which led to a four-year war that was eventually won by the Assyrians.

Relations with Elam continued to be problematic. There were several pretenders to the Elamite throne, and Ashurbanipal unsuccessfully backed an Elamite prince who had fled to Nineveh. In retaliation to a coup by Humban-Haltash, the Assyrian king began a war that was meant to deal with this long-standing enemy once and for all. As depicted on the reliefs from Ashurbanipal's Ninevite palace, his army stormed one city after the other, finally sacking and despoiling the capital, Susa. Ashurbanipal was also victorious in his other campaigns, especially in battles against the Arabs, who had helped Shamash-shumu-ukin.

The final years of Ashurbanipal's reign are still obscure due to a lack of sources from this period. He may have abdicated in 631 and retired to

Harran, or he may have continued to rule Assyria until his death, possibly in 627. He was succeeded by his son Ashur-etil-ilani.

Despite his shadowy end amid growing internal and external threats to the Assyrian empire, Ashurbanipal was the last great Assyrian soldier-king and also left a considerable cultural legacy, most famously his library at Nineveh. The visual **arts** under Ashurbanipal reached a high level of refinement, as the numerous sculpted reliefs recovered from the palace at Nineveh testify. They show the king as chief of the victorious armed forces and the hunter of ferocious beasts, as in the famous lion hunt scene. *See also WARFARE.*

ASHUR-BEL-KALA (REIGNED 1074–1057 B.C.). King of Assyria, son of **Tiglath-pileser I**. He undertook numerous punitive expeditions against the raiding **Arameans**, as well as campaigns into **Anatolia** where the Urtians had become strong. With the Babylonians he concluded a peace treaty that was sealed by his marriage to the daughter of **Adad-apla-iddina**, whom he had appointed as king over **Babylonia**. A long inscription on the so-called Broken Obelisk, discovered at **Nineveh**, describes the king's prowess in hunting wild animals, his acquisition of a wide variety of fauna, and his numerous building projects.

ASHUR-DAN II (REIGNED 934–912 B.C.). King of Assyria, son and successor of the undistinguished Tiglath-pileser II, he ended the long period of decline suffered by the country after the demise of **Tiglath-pileser I**. **Royal inscriptions** once more become abundant. Ashur-Dan began by turning against his neighbors to the north, who had inflicted much damage on his border area. In the west he had to take on the ever menacing **Aramean** tribes and restored land and possessions that they had taken from the Assyrians. He pacified the eastern border region to secure trade with the Iranian plateau and beyond. Thereafter he made efforts to reactivate the ravaged **economy** by resettling displaced populations to make uncultivated land productive. Hand in hand with these efforts to secure the **agricultural** bases, he invested in the chariotry and the armed forces (*see* **ARMY**). He also undertook various building projects, mainly restoration work on the **palaces, temples**, and gates of the capital, **Assur**.

ASHURNASIRPAL II (ASHUR-NASIR-APLI IN ASSYRIAN; REIGNED 883–859 B.C.). King of Assyria, son and successor of Tukulti-Ninurta II, Ashurnasirpal built on the success of his predecessors to make Assyria the dominant power in the Near East. He undertook 14 campaigns, against the north (**Anatolia**) and the eastern regions of the Zagros mountains. Westward he traveled to the shore of the Mediterranean Sea and initiated good relations with the economically important Levantine states. In the south he maintained peace with **Babylonia**.

His overall policy was directed less toward further expansion than to the consolidation of Assyrian influence. His mobile and well-equipped **army** could be effectively deployed at short notice to quell insurrections and to punish rebellious vassal rulers. On the other hand, Ashurnasirpal also accepted daughters of local rulers for his royal harem to cement friendly relationships and was ready to defend loyal subjects by lending them military aid. With huge amounts of **tribute** and **taxes**, he had the resources to finance campaigns and grandiose building projects. In the new capital, **Kalhu** (modern Nimrud), an entire city was built, with **temples**, barracks, and residential quarters, where he resettled people deported from various parts of the empire. The so-called Banquet Stele describes the inauguration party where he entertained and feasted 69,574 people for 10 days. Ashurnasirpal was succeeded by his son **Shalmaneser III**.

ASHUR-UBALLIT I (REIGNED C. 1365–1330 B.C.). King of **Assyria**.

During his lifetime, Assyria's political situation changed significantly, due to the defeat of the neighboring kingdom of **Mitanni** by the **Hittites**. This allowed Ashur-uballit to extend his territory to the east and to grow in importance. He also initiated a close relationship with **Babylonia** by giving his daughter in marriage to the Babylonian king. *See also* KURIGALZU II.

ASSUR (ALSO SPELLED ASHUR). 1. City in **Assyria**. The site, known as Qalat Sherqat, lies on a limestone bluff overlooking the river Tigris. It was excavated by the German Oriental Society, directed for many years by **Walter Andrae**.

A deep sounding at the site of the Ishtar **temples** revealed that it had been inhabited at least since the middle of the third millennium B.C. At the beginning of the second millennium, Assur was involved in profitable **trade** with **Anatolia**, importing and exporting primarily **tin** obtained from western Iran, as well as **textiles**, in exchange for Anatolian **copper**.

The Amorite chief **Shamshi-Addu I** (reigning 1813–1781 B.C.) incorporated Assur into his kingdom and it became a ceremonial center and thereafter the capital of Assyria until 883, when **Ashurnasirpal II** moved the seat of government to **Kalhu**. The city remained a ritually important place as the seat of the eponymous **god** Assur and served as the burial site for Assyrian monarchs. The stone stelae bearing the names of the “**eponym** officials” (Assyrian *limmu*) were also displayed at Assur. This formed the basis of Assyrian chronology (*see* HISTORIOGRAPHY).

2. Assyrian national **god**. He is known as a local mountain and weather god since the **Third Dynasty of Ur**. As Assur became capital of the **Old Assyrian** kingdom, he became closely associated with the political fortunes of the country and thereafter assumed the position of supreme leader in the Assyrian pantheon.

ASSYRIA. The heartland of Assyria lies in the northern area of present-day Iraq, alongside the river **Tigris**, from the Anatolian foothills to the range of the Jebel Hamrin. Other important waterways to the east are the Upper and the Lower Zab, which run from the Zagros mountains. To the east extends a steppe-like plateau, known as the Jezirah, which reaches toward the Habur valley. Much of this land was fertile, suited to rain-fed **agriculture** and especially herding. Major **trade** routes, into **Anatolia** and the Iranian plateau via the Zagros range, as well as southward to **Babylonia** and west to the Mediterranean, crossed the country, which contributed toward the development of thriving **economies**.

In the sixth millennium B.C., the country was densely settled, and several important sites produced fine hand-painted **pottery** in the Halaf culture style. In the fifth millennium, **Nineveh** was a populous **city**; the area was subsequently dominated by the south Mesopotamian **Uruk** culture. Assyria did not experience the intense urbanization that took place in the south during the third millennium. It was incorporated into the kingdom of **Akkad**, and **Naram-Sin** built a **temple** at Nineveh.

Written sources, using a distinct Akkadian dialect known as **Old Assyrian**, only begin in the 20th century, when native **kings**, such as Ilushuma, established a dynasty. At this time, merchants from Assur began their lucrative trade with Anatolia, exporting Assyrian **textiles** and **tin**, which was obtained from a still-unknown source farther east, and importing **copper**. The relevant tablets all come from the Anatolian site Kültepe, near present-day Kayseri.

In the 19th century, an Amorite leader named **Shamshi-Addu I** exerted his sovereignty over Assyria from his base in the Habur valley. During the first half of the second millennium B.C., Assyria was eclipsed by Babylonia. The country saw the influx of peoples from the east, especially the **Hurrians**, and from the west, various Semitic-speaking tribes, such as the **Amorites**. An Indo-European elite who ruled the mainly Hurrian population in northeast Syria formed their own state (**Mitanni**) around 1500 and made the Assyrian kings their vassals. This changed only when the **Hittites** defeated Mitanni around 1350 B.C.

From the reign of **Ashur-uballit I** onward, the fortunes of the country began to revive. During the **Middle Assyrian period** (1400–1050), Assyria became one of the great military powers of the Near East. This entailed territorial expansion, mainly toward the north and the west, to form colonial dependencies that furnished tribute and manpower to the Assyrian state. Of prime importance for conquest and the maintenance of peace was the **army**, which became one of the best trained and equipped in the world. After the decline of the Hittite empire in the mid-13th century, **Tukulti-Ninurta I** (reigning 1244–1208) engineered the greatest expansion of the kingdom, including the incorporation of Babylonia.

Large-scale invasions and tribal unrest around 1100 contributed to the

disintegration of Assyrian power, and it was only in the 10th century that a new dynasty, with Ashur-Dan III, began to prepare the rise of the **Neo-Assyrian** empire (934–610).

The height of Assyrian power was reached in the seventh century B.C., when energetic warrior kings such as **Ashurnasirpal**, **Shalmaneser III**, **Tiglath-pileser III**, **Sargon II**, **Esarhaddon**, and **Ashurbanipal** fought on all fronts to sustain Assyrian pressure. The Assyrian empire included all of Mesopotamia (since Babylonia was under direct rule), most of central **Anatolia**, Syria including the Levant, and even, for a brief time, **Egypt**.

The policy of Assyrian kings was to nominate local rulers over their dependencies that had been won by military invasions and impose on them treaties of loyalty. As long as regular **tribute** payments and contingents of auxiliaries were received by the Assyrian authorities, the “vassal” partner was assured of Assyrian protection. Rebellions and treachery, such as joining anti-Assyrian alliances, were severely punished in raids, the leaders being gruesomely executed. Repeated disloyalty could be stopped by incorporating the country into the Assyrian provincial system, which entailed the complete loss of political and economic independence.

A further pacifying method, deployed where the latter option was unfeasible, was to deport a significant sector of the population (the elite and artisans) to other Assyrian-dominated regions. It has been estimated that millions of people were systematically displaced (*see* DEPORTATIONS).

Such harsh measures fanned the flames of resistance, and the Assyrian kings of the seventh century were forced to campaign relentlessly to keep their huge empire from falling apart. Their demise was swift. A coalition between the Babylonians, who resented Assyrian hegemony with great virulence, and the **Medes**, a new people who had settled in western Iran, spelled the final defeat in 612 B.C. when Nineveh was reduced to ashes.

The Assyrian elite was much influenced by Babylonia. Ever since Tukulti-Ninurta brought important Babylonian tablet collections to Assur, the Assyrian intelligentsia immersed itself in Babylonian learning. In the seventh century, a number of southern scholars were permanently installed at the royal court.

As far as the visual **arts** were concerned, Egypt, or rather the traditional Egyptian colonial outposts along the Syria coast, proved more inspirational, as the ivories from Nimrud (**Kalhu**) testify. The relief sculptures were initially borrowed from the Hittites but the fine, flowing lines of the classic palace orthostats from Kalhu and Nineveh are typically Assyrian.

ASSYRIAN. East Semitic dialect, a form of **Akkadian** that was spoken in **Assyria** and rendered in **cuneiform** writing. In accordance with the different historical periods, one distinguishes between Old, Middle, and Neo-Assyrian. The largest number of Assyrian texts excavated so far date from the ninth to the middle of the seventh centuries B.C. *See also*

ASSYRIAN KING LIST. A document written in **Assyrian** that consists of a chronologically ordered sequence of 112 Assyrian rulers from the beginning of the second millennium B.C. to Ashur-uballit II (died in 609 B.C.), of which several copies exist from the first millennium. It lists the name of the king, his father's name, and the length of his reign, with occasional remarks about particularly noteworthy events. The reliability of the list is doubtful for the early periods, but it still functions as the basis of the modern chronological framework for Assyrian history. *See also* ASSYRIA; HISTORIOGRAPHY.

ASTROLOGY/ASTRONOMY. Since all celestial observations in Mesopotamia served divinatory purposes—to discover the hidden meaning of divine messages inscribed in the movements of stars and planets—the two terms are inseparable. The primarily esoteric purpose did not preclude very detailed, regular, and “scientific” measurements and calculations.

Astral and planetary phenomena were only one part of a whole range of observable subjects that included the behavior of animals and human beings, the layout of cities, malformations of organs or fetuses, prices of staple commodities, war, famines, and so forth. The principle was that deviations from a perceived “normality” were inherently “ominous” and had either positive or negative connotations.

The collection and interpretation of such spontaneously occurring **omens**, as opposed to those solicited in specific rituals, was the task of highly trained **scribes**. They compiled lists of omens, in series covering different categories, with a column of text providing the interpretation. To establish astronomical “regularity,” planetary and astral data were collected and collated. The scholars aimed to include all possible permutation of phenomena and encoded them in such a way that they could be meaningfully decoded when unusual celestial events occurred.

The earliest celestial series date from the **Old Babylonian period**, from around 1700 B.C. They chart not only unusual astral phenomena but also weather patterns at the time of observation. The collection of data kept growing and was compiled in a work called *Enuma Anu Enlil*, after its initial words. Copies were found in the library of **Ashurbanipal** at **Nineveh**. The entries concentrate on omens for the king and the country (e.g., “If the sun is surrounded by a halo and a cloud bank lies on the right, there will be a catastrophe everywhere in the country”).

Lunar and solar eclipses were considered particularly ominous. It was crucial for diviners to predict the timing of an eclipse in time for apotropaic rituals averting any evil influence to be performed. The so-called mathematical-astronomical texts (MUL.APIN “The Plough-Star”) from the last centuries of the first millennium B.C. incorporate methods whereby

such phenomena could be predicted to a high level of accuracy.

During the **Achaemenid** period, divinatory practices became less popular and individual predictions were solicited, which led to the introduction of the horoscope in the **Seleucid** period, perhaps as a Greek influence. A Babylonian invention was the assignment of four groups of zodiacal signs to the moon, Saturn, and Mars.

Astronomical diaries, recording lunar, planetary, meteorological, and economic data were kept well into the Christian era.

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BABA (ALSO KNOWN AS BAU OR BAWA). Sumerian goddess of **Lagash**, called “Mistress of the Animals” and “Lady of Abundance,” which marks her as a mother-goddess and patron of life and fertility. She was the wife of the main deity of Lagash, Ningirsu. She shared his **temple** at Lagash and also had her own sanctuary at Uruku, the sacred precinct of **Girsu**. *See also* RELIGION.

BABYLON. Ancient **city** on the river **Euphrates**, south of modern Baghdad. The name is the Greek version of the **Babylonian** *Babili*, which was rendered as “Gate of the Gods,” although the etymology is unclear.

The river used to run through the city but has shifted its course, and the denuded site was left uninhabited for centuries, while the baked bricks used in the monuments were reused by local villagers for their own shelters. There are several scattered **tells** on an area that used to be enclosed by a wall of some 20 kilometers in length. Due to the high water table, archaeological levels lower than those of the later second millennium B.C. are inaccessible. The extensive archaeological site was excavated by the German Oriental Society starting in 1899, originally led by **Robert Koldewey**; more recently, Iraqi archaeologists have been at work at the sites. The most spectacular remains, such as the restored Ishtar Gate with its glazed tile reliefs of sacred animals, are in the Pergamon Museum in Berlin.

Babylon always had a reputation as a sacred site. It was first mentioned in an inscription of the **Akkad king Shar-kali-sharri**, but it is unlikely that the city’s main **temple**, the Esagil, was founded by **Sargon of Akkad**, as a **Babylonian Chronicle** states. It was the seat of a governor during the **Third Dynasty of Ur** but only grew to some importance in the **Old Babylonian period** when Sumu-abum made it the capital of his kingdom. **Hammurabi** enlarged and fortified the city in the 18th century B.C. The **Marduk** temple Esagil and the first **ziggurat** may also have been constructed at this time, although there is no archaeological proof for this.

The **Hittite** king **Mursili I** destroyed Babylon around 1595 B.C. It was rebuilt under the **Kassite Dynasty**, which promoted the cult of the venerable Babylonian **gods**. The city suffered another sacking (c. 1174) at the hands of the Elamites, who also abducted the statues of Marduk and his consort. It was **Nebuchadrezzar I** who vindicated this insult by invading Elam and bringing back the stolen gods. In subsequent centuries Babylon was under foreign influence and occupation, first by **Elam** and then by the **Assyrians**. While some Assyrian kings wrought havoc in the “sacred city”

(e.g., **Sennacherib** in 698), others endowed the sanctuaries lavishly.

However, it was during the time when Babylonia had regained its independence and became a powerful empire that the city began to be invested with magnificence. This was largely the work of **Nebuchadnezzar II**. He used the enormous revenue generated from **taxes** and **tribute** to embellish the capital, which became the largest and wealthiest of cities in the Near East.

It was surrounded by a strongly fortified double wall, some 20 kilometers long, pierced by several gates. Huge bulwarks of baked brick protected the wall at the places where the Euphrates entered the city. Nebuchadnezzar built new **palaces** and decorated the throne room with glazed brick wall designs, which have also been partially reconstructed in Berlin.

Of particular importance was the sacred precinct of the god Marduk, with the temple Esagil and the ziggurat, remembered in the Bible as the Tower of Babel, which took 17 years to complete. It incorporated the remains of earlier structures under a casing of brick some 15 meters thick.

A straight, walled street that served military as well as ritual purposes linked the temple to the western gate. It was used for the annual processions during the New Year **festival**, and glazed bricks lined the walls, showing the symbols of the main deities: the dragon of Marduk, the lion of **Ishtar**, and the bull of **Adad** (see ARCHITECTURE, RELIGION).

When the **Persians** took political control of Mesopotamia, they did not destroy the city. In the **Seleucid** period, a theater and a new market were built, while older temples continued to flourish. Despite the foundation of a new capital, Seleucia-on-the-Tigris, Babylon remained an important urban and especially religious center but declined when **Parthian** rule isolated **Babylonia** from the Hellenized world. See also KOLDEWEY, ROBERT; OPPERT, JULES.

BABYLONIA. As a political term, *Babylonia* became current during the **Kassite** period when it was also known by its Kassite name *Karduniash*. It comprised the area south of the Jezirah up to the marshes of the Persian Gulf, bordered to the east and west roughly by the **Tigris** and **Euphrates** rivers but with no clearly defined boundaries. In modern works, *Babylonia* is also used as a topographic term, more or less synonymous with southern Mesopotamia, in distinction to **Assyria** or northern Mesopotamia.

BABYLONIAN. Linguistic term for an east Semitic dialect of Mesopotamia since the beginning of the second millennium B.C. There are certain differences between Old, Middle, and Neo-Babylonian. The Babylonian cursives of **cuneiform** tablets can be distinguished from the **Assyrian** examples by a preference for archaic styles and greater complexity of form. See also BABYLONIA; LANGUAGES.

BABYLONIAN CHRONICLES. Several chronicles were written in **Babylon** from the middle of the second millennium B.C. onward. Chronicle P records the dealings of the **Kassite Dynasty** with its **Assyrian** and **Elamite** neighbors. There are seven **Neo-Babylonian** chronicles from the reign of Nabunasir to the **Persian** conquest in 539 B.C. The Late Babylonian Chronicles follow on after a gap of some 50 years and cover the **Achaemenid empire**, the reign of the successors of **Alexander the Great** (Diadochi), and the period of the **Seleucids**.

The **scribes** who wrote these documents were primarily interested in events at **Babylonia** from a Babylonian point of view and thus often contradict or supplement other sources, like the Assyrian **annals** and **royal inscriptions**. On the other hand, they do not gloss over military defeats or the fact that Babylonia was governed by foreign kings, and thus betray a genuine interest in history. *See also* HISTORIOGRAPHY.

BABYLONIAN KING LISTS. Continuing the framework set up by the earlier **Sumerian King List**, Mesopotamian **scribes** composed similar chronological lists, which are not preserved in their entirety. King List A enumerates the **kings** from the **First Dynasty of Babylon** to the rise of **Nabopolassar** in 626 B.C. *See also* HISTORIOGRAPHY.

BAD-TIBIRA. Ancient **Sumerian city**, so far only known from **cuneiform** sources as the archaeological site has not yet been identified with certainty (though Tell al-Medan has been proposed). The toponym translates as “wall of metalworkers,” perhaps a reference to the city’s specialization. In the **Sumerian King List**, Bad-Tibira is listed among the second of five legendary antediluvian cities and said to have been ruled by three kings, including **Dumuzi**, the Shepherd, for a total of 108,000 years. This can be taken as a reference to the ancient foundation of the place, which like **Eridu** may go back to the **Chalcolithic period**. The city is mentioned in some **Early Dynastic royal inscriptions** but seems to have been abandoned in subsequent periods.

BARLEY (LATIN HORDEUM SPP.). This is one of the cereal plants, along with wheat and emmer, native to the **Fertile Crescent**. These plants were domesticated in the **Neolithic period** and could be grown with dry farming methods. Since barley is more salt tolerant than wheat, it became the most important staple grain in the irrigation-based Mesopotamian **agriculture**. It was sown at the onset of winter in carefully prepared plowed fields in straight rows and harvested in spring, between April and May. A **Sumerian** text known as the Farmers Almanac gives detailed instructions of the main stages involved in cultivation, from the calculation of how much seed to use per surface available to the manpower and animal traction that was required. Barley was consumed as bread and gruel and in the form of **beer**.

Since it was cultivated on a large scale on behalf of the “great organizations,” the **temples** and **palaces**, the surplus was administered centrally and distributed in the form of rations. Barley was so integral to the Mesopotamian **economy** that it served as a commodity and means of payment.

BAZI DYNASTY (C. 1005–986 B.C.). Short-lived and poorly documented **Babylonian Dynasty** featured in **Babylonian King Lists** as springing “from the House of Bazi.” Three **kings** are listed for this period, one of the most difficult and disruptive times in Babylonian history.

BEER. The earliest evidence for the use of beer comes from Godin-Tepe in central Iran, where remains of beer were found in a fragmentary jar that dates back to the late fourth millennium B.C. In the ancient Near East, beer was part of the basic nutrition and was apparently consumed at all times in large quantities and as part of the daily rations to laborers. Since only fresh water was used in its preparation, it was a healthier drink than the often polluted water from the canals and wells, as well as being enriched with protein and vitamins and easily digestible. Its percentage of alcohol is not known. Several myths and narratives describe drunkenness among gods and mortals. One creation myth derives the various defects suffered by people, such as blindness and barrenness, as the result of a competition between two inebriated deities (“**Enki** and **Ninhursanga**”).

Beer was produced mainly from **barley**. From the pounded grain, cakes were molded and baked for a short time. These were pounded again, mixed with water, and brought to fermentation. Then the pulp was filtered and the beer stored in large jars. Mesopotamian beer could be kept only for a short time and had to be consumed fresh. The **cuneiform** texts mention different kinds of beer, such as “strong beer,” “fine beer,” and “dark beer.” Other sorts were produced from emmer or sesame, as well as dates in the **Neo-Babylonian period** and later.

Beer was not only part of the rations for workers but was also offered daily to the **gods**. In the **temple** cult, it was further used at banquets during the major **festivals**. *See also* FOOD.

BEL-HARRAN-USUR. **Assyrian** official in the eighth century B.C. He was **palace** herald under King **Adad-nirari III** and held several other important offices, such as that of an **eponym** (*limmu*) and governor of Guzana. In a stele discovered north of Hatra, his name appears before that of the **king**, which demonstrates that his power in the area was greater than the king’s. He also mentions in the text that he had founded a new settlement, called Dur-Bel-harran-beli-usur (literally Fort Dur-Bel-harran-usur).

BELL, GERTRUDE (1886–1926). British traveler, administrator, and

archaeologist. Her linguistic abilities and independent means allowed her to travel widely in the Ottoman provinces of the Middle East, summarized in her book, *The Desert and the Sown* (1907). In 1915 she became a member of the Arab Bureau, along with T. E. Lawrence, and political officer in the British Army. Having been instrumental in setting up the kingdom of Iraq in 1921, she remained in Baghdad until her death. She founded the Museum of Iraq as well as the British School of Archaeology in Iraq.

BEROSSUS (BEL-RE'USHU IN BABYLONIAN). Babylonian scholar and **priest** of **Marduk**, who lived in the third century B.C. during the reign of Antiochus I. He wrote a "History of Mesopotamia" (*Babyloniaka*) in Greek, of which only fragments survive as quotations in much later Greek and Roman texts, in order to communicate the achievements of Mesopotamian civilization to new Macedonian rulers.

The work was apparently in three volumes: the first contained a geographical description of **Babylonia** and the origin of human life and civilization, the second was about the 10 **kings** before the flood and various later dynasties down to Nabu-nasir (eighth century), and the last volume covered the period of **Assyrian** domination to **Alexander the Great**. Later classical tradition also claims that he introduced **astronomy** to the Greeks.

BITUMEN. Latin word for naturally occurring semisolid hydrocarbon (petroleum). Bitumen springs were found in several palaces in Mesopotamia, and the substance (*kupru* or *ittu* in **Akkadian**) was used primarily for waterproofing vessels and containers, as well as in construction. It also served to attach ax heads and similar tools to their shafts. Although the Bible reports the Babylonians used "pitch instead of mortar" (Genesis 11:3), this material was only used when protection from rising damp was necessary, such as in buildings near waterways or in large structures such as **ziggurats**. Coatings of bitumen plaster made walls watertight, a practice documented in Old Babylonian **Ur**. *See also* ARCHITECTURE; BUILDING MATERIALS.

BIT-YAKIN. A **Chaldean tribe** in southern **Babylonia** during the first millennium B.C., which settled in the very south of the country, near the marshes. The tribe grew rich and influential when it began to control access to the Persian Gulf and thus the maritime **trade** route south.

When Babylonia was under **Assyrian** occupation in the seventh century B.C., the Bit-Yakin made several, at times successful attempts to challenge Assyrian hegemony. Their most famous leader, who assumed kingship in **Babylon**, was **Merodach-baladan**, the arch-enemy of **Sennacherib**.

BORGER, RYKLE (1929–). Dutch-born German Assyriologist, based at the University of Göttingen. He made major contributions to the study of

Assyriology, both in terms of making the language more accessible through his sign lists (*Akkadische Zeichenliste*, 1971; *Mesopotamisches Zeichenlexikon*, 2004) and his introduction to the readings of **cuneiform** texts (*Babylonisch-Assyrische Lesestücke*, 1979) as well as by providing a bibliographical concordance of all published texts relating to the subject (*Handbuch der Keilschriftliteratur*, 3 volumes, 1975). He also published important historiographical material (*Einleitung in die assyrischen Königsinschriften*, 1973; *Beiträge zum Inschriftenwerk Assurbanipals*, 1996).

BORSIPPA. Babylonian **city** (modern Birs Nimrud), southwest of **Babylon**, which early travelers mistook for Babylon. It was investigated in the 19th century by explorer-cum-archaeologists such as **Austen Layard**, **Hormuzd Rassam**, and **Henry C. Rawlinson**, and more recently by an Austrian team.

The site was occupied from the late third millennium B.C. until the Islamic period. The main attraction of the city, especially during the first millennium, was the **temple** of the **god Nabu**, known as Ezida, which **Hammurabi** of Babylon claimed to have restored. Most of the extant archaeological evidence dates from this time. The Ezida precinct then consisted of a temple and a **ziggurat**, both within a walled enclosure. A processional street led from the temple, through the city gates, toward Babylon. This was ritually used in the New Year **festival** when Nabu, like all major Babylonian deities, assembled at the precinct of **Marduk**.

BOTTA, PAUL-ÉMILE (1802–1870). French doctor and archaeologist who conducted the first large-scale excavations in Mesopotamia. Employed as consular agent in Ottoman Mosul, he discovered **Dur-Sharrukin**, the palace of **Sargon II** at Khorsabad (**Nimrud**) in 1843, having found the mounds of nearby Kuyunjik (**Nineveh**) not promising. Generously financed by the French government, he managed to unearth most of the palace by 1845. His shipment of antiquities, including the monumental human-headed bulls and lions, was displayed in the Louvre, and his lavish publication of *Monuments de Ninive*, illustrated by Eugène Flandin, popularized the achievements of Assyrian **art**.

BOTTÉRO, JEAN (1914–2007). French Assyriologist and historian. His numerous publications gained a wide general readership in France and, through the translations into English, in many other countries. Having early joined and later left the Order of Dominicans, he remained deeply interested in religion and wrote several books on the subject of Mesopotamian religions (*La Religion babylonienne*, 1952; *Mythes et rites de Babylone*, 1985; *La plus vieille Religion, En Mésopotamie*, 1998). He also worked on a collection of **Old Babylonian** recipes, published in

BOUNDARY STONES (KUDURRU IN BABYLONIAN). Inscribed stone monuments in the shape of roundly dressed blocks were set up in **temples** and perhaps in special chapels to publicize the donation of land by the king in order to reward loyal subjects. The earliest example dated from the time of **Manishtusu** (23rd century B.C.), but the word *kudurru* generally denotes boundary stones from the **Kassite** Dynasty to the **Neo-Babylonian period** (14th–7th centuries B.C.). The legal documentation was given added protection and validity by the carved emblems of deities at the top of the stone, as well as elaborate **curses**.

BRONZE. From the fifth millennium B.C. onward, the use of bronze spread gradually over the Near East and was introduced to Mesopotamia around 3000 B.C. It was first produced as an alloy of **copper** and antimony or lead, later as an alloy of copper and **tin**. It was made either by smelting a mixture of copper ores and tin ores or by melting together metallic copper and tin. The alloy ratio varied from 6:1 to 10:1 depending on the function of the objects and the raw materials used. Normally the portion of arsenic is rather low in Mesopotamian bronze, but it can rise to 4 percent (arsenic bronze) depending on the copper ore.

Bronze was used for cult objects, tools, **weapons**, and all kinds of everyday items. Several bronze objects such as swords or vessels were found in the Royal Tombs of **Ur**. After 1200 B.C., bronze was partially and gradually replaced by **iron**. The bronze bands from the **temple** gates of Balawat (Imgur-Enlil) with their depictions of scenes from the military campaigns of **Ashurnasirpal II** and **Shalmaneser III** are of major historical importance, as are the bronze artifacts from **Urartu** and Luristan. *See also* METALS.

BUILDING INSCRIPTIONS. Since the erection and maintenance of important buildings such as **palaces** and **temples** were the responsibilities of the Mesopotamian kings, they often commemorated their contributions. Inscribed tablets made of metal or stone were placed in a box beneath the foundations or, in the shape of a cone-shaped peg, inserted into the brickwork of the walls. The inscriptions could be short, just containing the name and title of the **king** and the name of the building, and sometimes the date, such as in which year of his reign the building was dedicated. They could also be much longer and furnish information about important events that took place at the time, such as résumés of military campaigns (especially in **Assyrian** inscriptions).

When a building was renewed, the foundation box was searched for, and a new one could be added to the one discovered. Therefore, many building

inscriptions were addressed to “future kings” who were exhorted to treat these documents with due respect, and terrible curses were heaped on those who would cast them aside or break them.

Building inscriptions are valuable sources for the reconstruction of historical sequences, especially when other written material is not available, and essential for the identification and dating of an excavated architectural structure. *See also* ARCHITECTURE; FOUNDATION DEPOSITS; HISTORIOGRAPHY.

BUILDING MATERIALS. Due to the geophysical characteristics of the alluvial plains of southern Mesopotamia, the most common building material was clay, in the form of sun-dried mudbrick. This was used for vernacular as well as for monumental structures such as **temples, palaces,** and **city** walls. The mud could be tempered with organic substances such as chaff and straw, or sand, although in some areas the natural composition of the soils was such as not to need any tempering. The mudbricks were laid in mud plaster, sometimes with the addition of lime. **Bitumen** was widely used for damp- and waterproofing in wet rooms and near waterways. Kiln-fired bricks were also primarily used to counteract rising damp and water erosion.

Local trees such as the date palm provided timber for the flat roofs, as well as doorways; for the wider spans in temples and palaces, coniferous hardwood (e.g., cedar) was imported from Syria and the Levant. In the marshy regions of the south, reeds provided the building material for temporary constructions, such as byres, sheds, and simple dwellings.

Stone, especially limestone, is more commonly found in northern Mesopotamia but did not play a major role in architecture. It was used in **Assyria** for foundations; engineered structures such as bridges, canals, and quays; and door sills and column bases. Stone slabs lining the lower courses of exterior walls (known as *orthostats*) could be found in some palaces in northern Syria and **Anatolia**. This practice was adapted for interior use by the Assyrians, and many of the carved limestone slabs are now displayed in museums around the world.

The **nomadic** peoples of Mesopotamia lived in tents made from the wool of goats and sheep. *See also* ARCHITECTURE.

BUREAUCRACY. *See* ADMINISTRATION.

BURNABURIASH I (REIGNED C. 1530–C. 1500 B.C.). Listed as fourth **king** of the **Kassite Dynasty** in the **Babylonian King List**, son of Agum I Kakrime. According to later **Assyrian** chronicles, he made a **treaty** with the Assyrian king Puzur-Ashur III to determine the boundaries between **Babylonia** and **Assyria**.

BURNABURIASH II (REIGNED C. 1359–C. 1334 B.C.). Babylonian king of the **Kassite Dynasty**, successor and possibly son of **Kadashman-Enlil I**. He ruled at a time of general peace and prosperity in Babylonia and corresponded regularly with the pharaoh Akhenaten (Amenophis IV) of **Egypt**, as documented in the **Amarna letters**.

CAMEL. The home of the one-hump camel (dromedary) was most likely the Arabian peninsula, from where there are indications for its domestication as early as the fourth millennium B.C. Depictions of camels from the Oman peninsula date to approximately 3000 B.C.

The two-hump Bactrian camel came from the steppes of Central Asia. Both kinds are mentioned in **Old Babylonian cuneiform** texts. In at least one of them the dromedary occurs as a domesticated animal, but it is not before the middle of the second millennium B.C. that there is evidence for the widespread use of domesticated camels (dromedaries) for transportation and **warfare**. Especially for the stock-breeding **nomads** of the Syrian-Arabian steppe, camels meant greater mobility and independence from traditional pasture areas.

In the overland **trade**, camels opened new caravan routes through territories that had been impassable before due to the lack of water. The oases along these routes—Palmyra, Djuma Djandal, Teima, al-Ula—became important trading places and military posts.

Military expeditions such as **Nabonidus**'s conquest of Teima depended heavily on the use of camels. Therefore, they were important items among the booty and **tribute** from the Arabian Peninsula. Wall reliefs from **Nineveh** show **Assyrian** troops pursuing **Arab** fighters mounted on dromedaries. Bactrian camels being presented to the Assyrian monarch are depicted on the famous Black Obelisk of **Shalmaneser III** (see **WARFARE**).

CHALCOLITHIC. An archaeological period (literally “copper-stone” age) that refers to increased use of metallurgy, especially of **copper**, toward the end of the **Neolithic period**. In Mesopotamia, the Chalcolithic period lasted approximately from the sixth to the fifth millennia B.C. Pilot sites are Tepe Gawra and Tell Arpachiya in the north, and **Eridu** and Tell Awayli in the south. For southern sites, the term **Ubaid** period is also used, and for the north, **Halaf** period.

In this phase, all the achievements of the preceding period were further developed; horticulture and **agriculture** spread, and more and more people adopted a sedentary lifestyle. The archaeological evidence points to increased settlement size, increased specialization and professionalization, and higher labor inputs. All ecological niches and their wild resources (fish, water fowl, game, wild legumes) were exploited, and new cultigens were planted in fields and gardens, making use of hydro-technological inventions

such as field irrigation.

The Chalcolithic period also saw the introduction of fundamentally new technologies. Particularly striking is the hand-painted, sometimes glazed **pottery** showing an unparalleled degree of perfection. Pottery sets, found in many graves, were probably used in rituals and banquets where status could be displayed (*see* CRAFTS; FUNERARY AND BURIAL PRACTICES).

Metallurgy was less developed in Mesopotamia than in neighboring countries such as Iran. **Gold** was introduced, and arsenic **bronze** appeared in the upper **Euphrates** region in the Ubaid period. There is some evidence from Tell Awayli of a weaving loom (*see* TEXTILES).

Stone was also worked with more sophistication; it was now possible to work stones with a hardness of 4 to 7 on the Moh's hardness scale. The presence of exotic stones, such as lapis-lazuli from Badakhshan or turquoise from Central Asia, points to an interlinking supply system. Exchange of goods seems to have been an important factor of Chalcolithic socioeconomics, as was the practice of seals and sealing documents. Some scholars propose that Chalcolithic communities were on the way to forming states ("incipient state-hood"), given the whole-scale application of traditional inventions, efforts at maximizing energy output, and increasing full-time sedentarization.

CHALDEANS. Semitic-speaking **tribal** peoples in southern Mesopotamia. The name comes from the Babylonian term for their region, *mat kaldu*. Together with **Aramean** tribes, they entered **Babylonia** between 1000 and 900 B.C. The main tribes were the **Bit-Yakin**, Bit Amukanni, and Bit Dakkuri, all occupying their own territory and having their own rulers. They were prosperous, profiting from the maritime gulf **trade** that passed through their land.

The term *Chaldean* was from then on also used to denote Babylonia, until well into the Roman period.

CHALDEAN DYNASTY (626–539 B.C.). **Babylonian** dynasty founded by the **Chaldean** leader **Nabopolassar**, who brought the period of **Assyrian** domination over **Babylonia** to an end. He made an alliance with the **Medes** and successfully launched attacks against the powerful Assyrian **cities**, destroying **Nineveh** in 612. His successor, **Nebuchadrezzar II**, fought to win the Syrian and **Anatolian** provinces for Babylonia and built the city of **Babylon** into the most splendid capital of the time.

There were violent **palace** intrigues after Nebuchadrezzar's death, although the situation in Babylonia and the conquered territories remained relatively stable. The last Chaldean **king** was **Nabonidus**, who spent 10 years in an oasis town in northern Arabia and after his return had to submit to the **Persian** emperor **Cyrus II**, who brought Mesopotamian independence to an end.

CHARIOT. The chariot was an important instrument of war, particularly during the earlier phases of ancient Near Eastern history. Already for the **Early Dynastic period** (c. 2500 B.C.), the military use of chariots is widely documented. According to visual evidence from the “Standard of Ur” and the “Stele of Vultures” (*see* EANNATUM), those early chariots were heavy vehicles with two or four solid wheels, drawn by teams of four donkeys. Their personnel consisted of two men, a driver and a warrior.

In the second millennium B.C., when **horses** were introduced by peoples coming from the Central Asian steppes, chariots were adapted to higher speed by reducing their weight and increasing their maneuverability. This was only possible after the invention of the spoked wheel. The military successes of the **Hittites**, **Kassites**, and **Mitanni** are mainly due to the use of quantities of light horse-drawn chariots for attacks. In **Egypt**, the two-wheeled chariot was introduced by the Hyksos.

During the first millennium B.C., the military importance of chariots decreased. As an attack force they were replaced by the cavalry, but they remained an important vehicle for the military elite and for the king. **Babylonian** and **Assyrian** monarchs used them on campaigns, during **festivals**, and on hunting expeditions. *See also* ARMY; WARFARE.

CITIES. Mesopotamian scribes considered urban life as the only form of civilized communality. A person’s civic identity was that of a citizen of a particular city with its suburbs and surrounding countryside. Nonurban members of the population defined themselves by **tribal** allegiance.

Myths describe cities such as **Babylon** to have been created by the **gods** to be their dwelling place. Each city was thus intimately connected to a particular deity, whose image resided in the **temple**. **Ur**, for instance, was the seat of the moon god Nannar-Suen, **Sippar** of the sun god **Shamash**, and so forth. The fate of individual cities was linked with the prestige and popularity of their main deity. Royal patronage of the cult could sustain a city with a famous sanctuary in periods of economic hardship or ecological problems. A well-developed temple economy, more or less independent from central control, could also contribute substantially to a city’s survival. The city of **Uruk**, which boasted two ancient and important shrines, of the goddess **Inanna/Ishtar** and the sky god **Anu**, owed much of its longevity and prosperity to the religious prestige of the city.

Economically the city functioned as a regional center, controlling the **agricultural** production of the surrounding fields and organizing the craft and textile manufactory. Temples as well as governmental institutions (*see* PALACE) organized the **administration**.

Since the early third millennium B.C., cities competed over land and especially water resources and engaged in intense intercity rivalry that often escalated into **warfare**. As a result, cities came to be surrounded by fortified walls and military commanders could achieve positions of power.

Competing interests of individual cities could be reconciled through alliances and leagues, which ensured cooperation and mutual support. They also prepared the way for centralized state formations that subordinated the control of individual cities to a single political entity controlled by a king (*see* **AKKADIAN DYNASTY**; **THIRD DYNASTY OF UR**). Such centralized control could only be maintained for limited periods since the resentment of city leaders fostered rebellions and resistance. It was the **Kassite Dynasty** that managed to form the first unified state to endure for centuries; this was no doubt to some degree at the expense of cities. Small towns and villages became the dominant settlement form during this time.

The old cities benefited in subsequent periods as centers of production, sacred centers, and political capitals (*see* **BABYLON**; **NINEVEH**; **URUK**). The Babylonian cities survived the demise of the country's political independence under the **Achaemenid** and **Seleucid** regimes.

COPPER. Copper was the first **metal** humans learned to work with. The earliest evidence comes from Cayönü in southeast Turkey (late ninth or early eighth millennium B.C.), where small items of jewelry were made from cold hammered nuggets. Large-scale copper production is associated with the **Chalcolithic** period. Especially in **Anatolia** and Palestine, quantities of copper articles were produced in the fifth millennium. Antimony and arsenic were often added to the copper to improve its working properties.

The copper used in Mesopotamia originated from various places, notably Cyprus, Anatolia, Iran, the Levant, Sinai, and Oman. Copper was melted, cast into easily transportable forms (ingots), and then shipped. From the fourth millennium on, it was made into beads and all sorts of everyday items; later it was also used for cult objects such as statues, musical instruments, and vessels. The coppersmiths fashioned the metal into objects by casting, chasing, hammering, forging, and engraving (*see* **CRAFTS**). One of the most famous copper objects from Mesopotamia is the head of a royal statue found at **Nineveh**. It dates from the **Akkadian period** and is believed to depict either **Sargon** or **Naram-Sin of Akkad**.

For a short time during the **Early Dynastic period**, copper served as standard but was soon replaced by **silver**. Copper was also a raw material in the production of bronze and glass. In medicine, it was used to cure eye diseases.

COURTS. *See* **LAW**.

CRAFTS. Professional specialization was a result of urbanization, which began in Mesopotamia in the fourth millennium B.C. Archaic **lexical lists** record the terms for professions, which include those of craftworkers. They were attached to the “great organizations” (**temples** and **palaces**), where

they were supplied with raw materials from a “craft storehouse” and given at least subsistence rations. Specialist **archives** from the **Third Dynasty of Ur** and **Mari** show how tightly craft production was organized under the supervision of particular administrators, which recorded in minute detail all the expenditures on materials and rations measured against output.

Some crafts, especially those associated with **textiles**, concentrated large numbers of workers, including **women** and children, in specialist workrooms. Noxious and noisy trades, such as tanning and metalwork, were conducted in special quarters of the city. State- or temple-controlled manufactories also used **slaves** as laborers. Little is known about the training of craftsmen but since the personnel lists show several generations of the same family involved in particular trades, it is likely that children learned the necessary skills from their parents.

The goods were distributed and marketed by the institutions. Luxury products were consumed by elite households and the temples but also exported by merchants. There were also local markets for more mundane wares, such as **pottery**, tools, and household equipment (grindstones, pestles, etc.). Some of the lexical lists dedicated to material culture provide linguistic evidence of the highly developed craft industries in Mesopotamia. They include lists of objects made from metal, stone, wood, reed, leather, bones, precious stones, shells, pearls, and cloth such as wool, linen, and possibly silk. Quantities of the more durable of such items have been discovered in archaeological excavations. *See also* ART; CYLINDER SEALS; TEXTILES.

CREATION MYTHS. There are numerous cosmogonic references in **cuneiform** sources that reflect the different theological themes of individual cult centers. A common theme is the notion that an undifferentiated and watery universe became separated into distinct pairs of opposites. At **Eridu**, home of the water deity **Enki**, the primordial substance was composed of the mingled sweet and salty waters that begat a third creative (female) element, which in turn produced Heaven (**Sumerian An**) and Earth (**Sumerian Ki**). At **Nippur**, the separation of Heaven and Earth, the **god Enlil** presides over the creation of the heavenly bodies and the organization of the world.

The best-known creation myth is known by its **Babylonian** name as *enuma elish* (“when above”). It builds on earlier cosmogonies and assigns the role of creator to **Marduk**. This text also presents a theme of intergenerational violence that may have been a north Syrian or **Hurrian** influence. The older divine couples are disturbed by the noise of their offspring and plot their destruction. The younger gods appoint **Ea** to defend them, but he fails and so they invest the son of Ea, Marduk, with magic powers to meet the challenge. He succeeds in defeating the primeval but now monstrous creator goddess Tiamat. He slices her body in half, fixes the

upper part to hold up the sky, and fashions the lower part into the Earth. The **Tigris** and **Euphrates** rivers flow from her eye sockets; her tail becomes a plug to hold back the subterranean waters. Marduk also fixes the planets and stars on the upper heaven and decrees their paths. He fashions man from mud mixed with the blood of Kingu, the general of Tiamat's army. In gratitude, the gods confer on Marduk the **kingship**, and he establishes **Babylon** as his dwelling place on Earth.

The Creation of Mankind in older sources is attributed to mother goddesses who collaborate with a divine culture hero (Ea-Enki) who mingles clay with the breath (or the blood) of a god. The destiny imposed on humankind is the service of the gods, especially the backbreaking tasks of maintaining the irrigation system, and mortality. *See also* RELIGION.

CUNEIFORM. A system of **writing** in which a cut reed stylus is pressed into soft clay to leave a wedgelike imprint (Latin *cuneus*). It was invented in Mesopotamia in the late fourth millennium B.C. Different versions of cuneiform writing were used to write various Near Eastern **languages**: **Sumerian**, **Akkadian**, Eblaite, **Elamite**, Ugaritic, **Hittite**, and **Hurrian**. It was superseded by alphabetic scripts after the mid-first century B.C.

Archaic cuneiform script had a predominantly pictorial character since most of the signs originally referred to visible entities. Since the soft clay made accurate visual representation difficult, signs became simplified and individual "strokes" of the stylus replaced curvilinear forms in the early third millennium. In addition, the large number of signs was reduced to some 600.

Different cursive writing styles are associated with different historical periods. The Neo-Assyrian style is commonly used in Assyriological textbooks because of its comparative clarity.

The original repertoire of logograms (word signs) became extended through the principle of the "rebus," which could isolate the phonetic value of a sign to express syntactic and grammatical relationships that determine the meaning of a sentence. Special signs known as determinatives signaled the context of signs, especially to indicate when they were to be understood as a name (personal, topographical, theophoric, etc.). With the adaptation of cuneiform for several languages within the same culture (**Sumerian** and the Semitic **Akkadian**), the system became even more complex as the logographic value of a sign could be "translated" into the Semitic idiom and thereby created further phonetic readings.

Due to this inherent difficulty of the writing system, scribal training was long and arduous, restricting literacy to a relatively small group of people. The repercussions of cuneiform writing, however, affected the whole population because of the widespread use of writing in the **administration** and the judiciary. *See also* RAWLINSON, HENRY CRESWICK.

CURSES. Like the **oath**, the utterance of a curse was believed to have magic powers that could destroy its victim by an inherent force. In the Epic of **Gilgamesh**, the hero Enkidu curses the courtesan who had introduced him to civilization, and only a subsequent, equally elaborate blessing could avert the inevitable actualization of the malediction.

Public monuments could be protected from vandalism, theft, and misappropriation by curses. In such inscriptions, the **gods** are called upon to guarantee the effectiveness of the curse. The most common threat was to have the “seed cut off”—meaning to die without living offspring and to remain “without a name.” Royal grants and other publicly displayed legal decrees (*see* BOUNDARY STONES; LAW) had curses that not only safeguarded the stele or actual monument but ensured that the contents of the inscribed stipulations were respected for all times.

CYLINDER SEALS. Cylinder seals are short pieces of semiprecious stones or, more rarely, **metal**, perforated along the axis so as to be suspended from a string and engraved with a decorative pattern or representational scene, and sometimes an inscription. When the seal was rolled over a flattened damp piece of clay, it left an imprint in high relief. The purpose of such seals was to indicate the authority of the person or institution who applied the seal impression, rather like a signature on a modern document.

The practice originated within the complex bureaucracies of the Middle and Late **Uruk period** (in the mid-fourth millennium B.C.). The pictorial scenes that refer to activities such as weaving, attending to domestic animals, hunting, and apparently ritual actions may indicate spheres of **administrative** competence within the Uruk economy. Thousands of imprints of such cylinder seals have been found on lumps of clay that were attached to door locks, jars, and other containers.

From the end of the second millennium onward, **cuneiform** tablets could also be sealed. The iconography and artistic style of seal engraving naturally changed over time, which allows specialists to assess seals and sealings within a chronological and geographical framework. *See also* ART; CRAFTS.

CYRUS II THE GREAT (REIGNED 559–530 B.C.). **King** of Persia, son and successor of Cambyses I. He was the founder of the **Achaemenid empire**. Sources for his reign are **Herodotus** and Ctesias, as well as contemporary **Babylonian** records, especially the **Babylonian Chronicles** and his own inscriptions, such as the Cyrus Cylinder.

Cyrus began his career by defeating the **Median** king, Astyages. Having thus gained control over most of Iran, he set out to extend his dominions farther west. He attacked the Lydian capital Sardis, and within five years he had incorporated most of **Anatolia** into his empire. He then set out to conquer Babylonia. In 539 B.C., Cyrus crossed the Diyala River and took

the city of Opis on the **Tigris**, after he had vanquished the defending Babylonian troops. Soon afterward, **Sippar** surrendered and **Babylon** was taken by his commander, Gibryas, on 12 October. **Nabonidus**, the king of Babylonia, was taken prisoner and deported to Persia (*see* DEPORTATIONS). Cyrus entered Babylon on 29 October. He declared his son Cambyses II to be “King of Babylon,” while he himself took the traditional Mesopotamian title “King of the Lands.”

According to the Old Testament Book of Ezra, Cyrus issued the decree that allowed the deported Jews to return to Palestine and rebuild the temple in Jerusalem. Cyrus made efforts to extend his realm farther east, and it is likely that he controlled most of Afghanistan and South-central Asia. Within 30 years, he had turned a small kingdom into a vast empire. He died, probably on the battlefield, in 530 B.C., while fighting against a Central Asian tribe. His body was taken to Pasargadae, his new royal foundation, and buried in a stone-built tomb. A funerary cult continued there until the end of the Achaemenid empire.

DAGAN. West-Semitic weather **god** who was worshipped especially in the middle **Euphrates** region within the zone of rain-fed **agriculture**. He was the chief deity at **Ebla** and of great importance in **Mari**. He was introduced to Mesopotamia by the kings of **Akkad** in the third millennium. During the **Third Dynasty of Ur**, the cult of Dagan was centered at the livestock center of Puzrish-Dagan near **Nippur**. He also had a **temple** at **Isin** during the **Old Babylonian period**. Eventually Dagan merged with other weather gods, especially **Adad**. *See also* RELIGION.

DAIAN-ASHUR. Field marshal of the **Assyrian army** under **Shalmaneser III** (reigned 858–824 B.C.). He was also an **eponym** official for many years. In the royal **annals** of this period, he is often mentioned as conducting campaigns in the **king's** name.

DARIUS I (REIGNED 522–486 B.C.). **Achaemenid king**. Darius seems to have acceded to the throne in mysterious circumstances and had to repress internal dissent and quell rebellions in the **Persian** provinces. The rock inscription in a cliff face at Behistun recording his eventual triumph was written in Old Persian, **Elamite**, and **Babylonian**. It proved an invaluable source for the decipherment of **cuneiform**.

Darius much enlarged the territories of the empire toward the east. In the west, he faced revolts by the Ionian cities in Asia Minor and was beaten by the Greeks at Marathon. He also built a new capital at Persepolis, as well as **palaces** at Susa.

DARIUS III (REIGNED 336–330 B.C.). **Achaemenid king** who was defeated by **Alexander the Great** and lost the **Persian** empire to the Macedonian conqueror. Although he escaped from the battlefields at Issos and Gaugamela, he was killed by one of his own generals.

DEITIES. *See* GODS.

DELITZSCH, FRIEDRICH (1850–1922). German Assyriologist. He was one of the first Germans to obtain the habilitation in the subject in 1874 in Leipzig, where he subsequently taught and was made professor in 1885. He had studied Indo-European linguistics at Leipzig, and his work on **Akkadian** grammar and lexicography was instrumental in shaping the academic discipline of Assyriology (*Assyrische Grammatik*, 1889;

Assyrisches Handwörterbuch, 1896). He trained generations of scholars in Leipzig, Breslau, and Berlin, co-founded the German Oriental Society, and was in charge of the Near Eastern Department of the Royal Museums in Berlin.

DEPORTATIONS. Forceful displacement of people as the result of violent conflict is well documented in Mesopotamia. It arose from the desire of rulers to maintain control over recently conquered territories, or to eradicate resistance, or to make use of the labor power of subject populations by enslavement.

The **archives** of **Mari** document that the population of whole towns could be ordered to move at the behest of the **king**. The policy became most systematic and organized on the largest scale during the **Neo-Assyrian period** to suit the needs of imperial expansion and consolidation. **Sargon II**, for instance, deported nearly 30,000 people from Samaria, and **Tiglath-pileser III** organized massive deportation of peoples and **tribes** across his realm. Newly founded **cities**, such as **Kalhu**, were settled with displaced people to discourage dissent. The practice of forcing such population movements was continued by the **Neo-Babylonian** kings, such as **Nebuchadrezzar II**.

DILMUN. Sumerian toponym (**Akkadian**: *tilmun*), well known from **cuneiform** sources since the earliest records of the **Uruk period** until the **Achaemenid empire**, as a place with important **trade** links with Mesopotamia, mainly in connection with **copper** imports. The presence of “Tilmun merchants” is attested from **Ur** in the 19th century B.C. It has been identified with the Bahrein, at least for the period from the mid-third millennium. Dilmun also features in Sumerian mythology as a “pure and holy place” where the **god Enki** and his spouses bring forth life.

DIVINATION. The interpretation of divine intentions toward the world and human beings was of great importance for the maintenance of power relations in ancient Mesopotamia. A wide range of natural phenomena (from the stars to human and animal bodies) was systematically observed for any abnormalities to be categorized as having positive or negative portents (**omens**). Divination also served as a means of arriving at divinely sanctioned decisions, such as the appointment of high priestly offices or the commencement of military campaigns or major building projects. For such purposes solicited omens were sought by examining the entrails and the liver of sacrificial animals.

The practice of divination was based on a long written tradition and was subject to much esoteric elaboration. Diviners serving the kings of **Assyria** and **Babylonia** were highly trained, literate, and well-remunerated specialists. *See also* RELIGION.

DREHEM. Archaeological site, southeast of **Nippur**, excavated by French teams from 1910 to 1911. The numerous **cuneiform** tablets discovered there derive from the **archives** dated to the **Third Dynasty of Ur**, when Drehem, known as Puzrish-Dagan, served as the administrative center for livestock raising.

DUMUZI. 1. Two legendary **Sumerian** kings called Dumuzi are listed in the **Sumerian King List**, the first as having ruled antediluvian **Bad-tibira**, the second as king of **Uruk**, before **Gilgamesh**. 2. Sumerian **god**, described as the “shepherd” and lover/husband of the goddess **Inanna/Ishtar**, associated with the seasonal appearance and disappearance of vegetation as a dying and resurrecting deity.

DUR-KURIGALZU (MODERN 'AQAR QUF). **Babylonian** city. The name means “Fortress of Kurigalzu” since it was this **Kurigalzu**, a **Kassite king**, who built his residence there in about 1400 B.C. It served as the capital of the Kassite Dynasty until its demise in the mid-14th century. Kurigalzu surrounded the city, which covered some 225 hectares, with a fortified wall. Some of the colorful murals that decorated the walls of the royal **palace**, as well as a number of statuary and small ornaments, have been discovered in its ruins. Kurigalzu also built a **temple** and a large **ziggurat** (69 by 67.60 meters) that still stands to a height of 57 meters today. In 1170, the city was put to the torch by the **Elamites** and thereafter abandoned until it became inhabited once more during the **Neo-Babylonian** period.

The site was the first of the Mesopotamian mounds to be systematically excavated, first by **Émile Botta** (1843–1845), then by Victor Place (1852–1855); **Austen Layard** also spent a season there in 1849. An American mission by the University of Chicago was active from 1927 to 1953.

DUR-SHARRUKEN (MODERN KHORSABAD). **Assyrian** capital, inaugurated by **Sargon II** in 707 (the name means “Fortress of Sargon”). Sargon decided to move the center of Assyrian **administration** and the royal **palaces** from **Kalhu** to a brand-new site. The **city** was therefore planned from the beginning.

A massive wall of mudbrick (14 meters thick and 12 meters high) surrounded the rectangular outline of the city, enclosing an area of 300 hectares. There were seven gates, each dedicated to an Assyrian **god**. Within a separate enclosure stood the palace and the administrative complex known as the “Palace without Rival.” According to the French excavators, it contained more than 210 rooms, grouped around three courtyards. The portals were guarded by colossal human-headed, winged bulls made of stone, and the walls of the palace were lined with relief-covered limestone slabs that showed the triumph of the Assyrian **army** and

the deeds of Sargon. Numerous administrative tablets have also been found. There were several sanctuaries at Dur-Sharruken; the most notable was dedicated to the god **Nabu** and decorated with glazed tiles. The city was destroyed in the final cataclysm of the Assyrian empire around 612 B.C.

DYNASTY OF E (C. 979–647 B.C.). Little-known **Babylonian** dynasty from a time when **tribal** unrest, famine, and general disorder characterized Mesopotamian history. Most **kings** ruled only for a few years at the time, and **Assyria** dominated the political fate of the country, insofar as most kings occupied the throne at the behest of Assyrian rulers if they did not proclaim themselves direct rulers of **Babylonia** as did **Tiglath-pileser III**, **Sargon II**, and **Esarhaddon**.

EA. God of the underground waters and the magic arts, the **Babylonian** equivalent of the **Sumerian** god **Enki**, whose main sanctuary was at **Eridu** in southern Mesopotamia. Being the wisest among the gods, he was also the patron of craftsmen, artisans, and exorcists.

In various **Akkadian** myths, Ea is sought out for his advice and cunning; he alone realizes that the gods need the services of humankind and therefore helps his protégé Atra-hasis to escape the flood. Likewise, he knows how to resurrect the goddess **Ishtar**, who was doomed to remain in the underworld.

Ea was one of the most important Mesopotamian gods throughout history, as the many personal references (e.g., “Ea is my protection”) testify. From the mid-second millennium B.C. onward, he was primarily appealed to as a protector against evil demons. *See also* RELIGION.

EANNA. Sumerian name of a temple precinct in **Uruk**, which was dedicated to the goddess **Inanna/Ishtar**.

EANNATUM (REIGNED C. 2454–2425 B.C.). Early Dynastic ruler of the city-state **Lagash**, brother of his successor, Enannatum I. Eannatum was probably his official throne name; he was also known as Lumma, an **Amorite** name. According to his inscriptions, he fought against other cities, such as **Kish**, **Ur**, and **Mari**, and also campaigned in **Elam**. Eannatum is best known for his victory over **Umma**, the neighboring city that had a long-standing conflict with Lagash over the control of fields along their respective boundaries. He had a large stone monument erected, the so-called Stele of Vultures, that depicts the victorious army of the Lagashites trampling over the fallen foes, while vultures pick their bones. The text describes the history of the dispute and how the victory was granted by the will of the god Ningirsu, the patron deity of Lagash.

EARLY DYNASTIC PERIOD. Archaeological term referring to levels of Mesopotamian sites from the end of the **Jemdet Nasr period** (c. 2900 B.C.) to the reign of **Sargon of Akkad** (c. 2330). There are three subdivisions: Early Dynastic (ED) I (2900–2750), ED II (2750–2600), ED III A (2600–2500), and ED III B (2500–2330).

The first historical records that appeared were from Early Dynastic III A, brief inscriptions from **Kish**, **Ur**, and **Uruk**. Other texts, mainly of administrative purpose, were discovered at **Abu Salabik** and Fara (ancient

Shuruppak).

The Early Dynastic period saw the emergence of several important city-states and a marked trend toward urbanization. There was much competition between individual **cities**, not only for power and influence but for water rights and territorial boundaries. The documents found at Fara refer to large institutional organizations that could command thousands of men for various civic and military tasks. There may also have been coalitions of cities, such as the still poorly documented “Kengi-League.” Toward the end of Early Dynastic III, Uruk had achieved prominence under the leadership of **Lugalzagesi**.

EBELING, ERICH (1886–1955). German Assyriologist. His main employment was as a teacher in secondary schools but he taught philology (not only **Akkadian** but also **Aramaic**, **Sumerian**, and Ugaritic) and comparative religious studies at the Humboldt University of Berlin from 1921. He made large numbers of tablets available for study through his publications of cuneiform texts from **Assur** (*Keilschrifttexte aus Assur juristischen Inhalts*; *Keilschrifttexte Assurs religiösen Inhalts*; *Literarische Keilschrifttexte aus Assur*). Only after the war and late in life, in 1947, was he given a full professorship.

EBLA (MODERN TELL MARDIKH). City in the Orontes valley in Syria, a land well known for the fertility of its fields and rich pasture. The history and economy of Ebla are unusually well known, due to the voluminous **archives** discovered by Italian archaeologists in 1974. The texts were written in a Semitic language, now simply called Eblaite.

Ebla had been first inhabited during the **Chalcolithic** period (Mardikh I, 3500–3000). This is followed by Level II, subdivided into phases A, B1, and B2.

The most illustrious period was II B1, when the Royal Palace (with the archives) was built. The **palace** was the main institution of the Old Ebla kingdom; it employed some 4,700 people and entailed numerous workshops, such as forges and textile manufactories. The city was destroyed in c. 2250, probably by an **Akkadian** ruler. Ebla revived after an interval (Mardikh III A and B) in the **Old Babylonian period** and was finally destroyed in c. 1600. Sources for this period are far fewer.

ECONOMY. The basis of the Mesopotamian economy throughout history until very recent times was **agriculture**. The alluvial lowlands supported cereal crops, date palms, and legumes, while the steppe areas of the north, west, and east were used for raising livestock. Innovations such as the seeder plow, crop rotation, the use of draft animals, and efficient distribution of water for irrigation purposes led to high yields, which supported population growth. The process of urbanization, which began in

the late fourth millennium, led to the systematic and centralized cultivation of the land and high population densities in **cities**. The dominant mode of production was by large institutionalized households, primarily **temples** and **palaces**, although there were times when private ownership of land was more widespread (as in the **Old Babylonian period**).

The agricultural surplus was collected, stored, and distributed to the dependent labor force in the form of rations, which also supported nonagricultural workers, such as craftsmen, bureaucrats, and priests, as well as the elite. **Craft** production, especially of **textiles**, contributed to an exchange economy, as it was a prized export commodity that could be traded for **copper** and **tin**, to make bronze, and for **silver** and timber. *See also* TAXATION; TRADE.

EGYPT. The Egyptian civilization arose in the Nile valley at about the same time as that of Mesopotamia, and their development followed a similar trajectory. It is possible that indirect links existed between the two regions since prehistoric times, but diplomatic contacts between the rulers of Egypt and Mesopotamia date only from the second millennium.

While in both regions fertile alluvial soils facilitated surplus-producing **agriculture**, which provided the basis for population growth and the development of **cities**, there are marked differences in the geographical conditions. A barrier of deserts isolated the Nile valley to the east and the west, and the complex Nile delta was equally difficult to penetrate. This meant that Egypt was spared the numerous invasions by **tribal** peoples seeking better conditions for survival or by the **armies** of rival nations. Protected by natural barriers, once Upper and Lower Egypt were united, early in the third millennium B.C, the country developed a strong identity of shared ideas, customs, and **religion**, with a remarkable continuity, facilitated by the adoption of hieroglyphic **writing**. On the other hand, Egypt's lack of exposure to foreign influences and the lack of interest its elite showed in the wider world produced an inward-looking and at times arrogant disdain of outsiders that led to stagnation and entropy, which in turn facilitated foreign penetration and a forced absorption of new ideas.

The formation of a unified country occurred in the **Early Dynastic period**, at roughly the same time as that in Mesopotamia (c. 3100–2686), though a reconstruction of its history, apart from a few royal names, is impossible. The most important result was the development of **kingship** and the adoption of writing. The pharaoh had possession of large tracts of land and conducted **trade** with neighboring regions, so he accumulated substantial wealth. His abrogation of economic and political power was justified on ideological grounds as due to his divine nature. Vast **burial** sites dedicated to pharaohs and members of the royal family left visible reminders of their continuing influence on the Egyptian landscape. This pattern continued in later periods.

During the Old Kingdom (c. 2886–2181), dynastic succession as relayed in **king lists** was established and, in general, hieroglyphic sources became much more numerous. The habit of inscribing and decorating the tombs of kings and high officials with pictorial scenes allows insights into **religious** beliefs as well as the daily routine. The great pyramids, built by pharaohs of the IV Dynasty, remain the most monumental testimonies of Old Egyptian aspirations and beliefs. After six dynasties, following the gradual weakening of central control from Memphis, a period of confusion and civil war ensued, with different cities vying for control, known as the First Intermediate period (c. 2180–c. 2040), which ended with the emergence of a new center of power, Thebes. Trading resumed with neighboring regions, and military expeditions ensured the pacification of tribal peoples in the eastern and western desert. The Middle Kingdom (c. 2040–c. 1730) has been taken as the “classical” phase of Egyptian civilization, in which literature and the **arts** reached a high degree of refinement and sophistication. It is also the period in which Egypt consolidated its control over the Levant and Nubia, building vast fortresses and investing in military training and new equipment. The Middle Kingdom also ended in a period of decline, and the second Intermediate period lasted nearly 200 years (c. 1720–c. 1550). The country was again fragmented into different, often warring polities until eventually a non-Egyptian group, known as the Hyksos, established control from Avaris, situated in the delta. This city was attacked by Amose of Thebes, who established the XVIII Dynasty, ushering in the period of the New Kingdom (1552/1555–1069) when Egypt reached the zenith of its political power.

Already in the Middle Kingdom, pharaohs had been portrayed as conquering heroes, subjugating foreign peoples and bringing them under their yoke. Now the expansionist ideology brought Egypt into conflict with other ancient Near Eastern powers, especially the **Hittites**, who contested Egypt’s control over Syria and the Levant, as well as **Mitanni** and **Assyria**. The sources for the XVIII and XIX Dynasties are plentiful, and particularly valuable are the records and missives written in **cuneiform** and in **Akkadian**, then the lingua franca of international diplomatic exchange (*see* AMARNA CORRESPONDENCE). The XVIII Dynasty also produced a dramatic internal development under Pharaoh Amenophis IV, also known as Akhenaten, who moved the capital from Thebes to a new foundation at Tell al-Amarna. He famously proclaimed his sole allegiance to the sun god (Aten), whose worship by the king and his family is depicted on numerous works of art of the period. The imperial expansion of Egypt resumed under the XIX Dynasty, especially under the rule of Sety I and Ramesses II. This was challenged by the Hittites; the two armies clashed on the Orontes and a peace treaty was concluded between the two countries.

After Dynasty XX, another period of decline and fragmentation ensued, although Egypt fared better in the turmoil associated with the **Sea Peoples**

in the 13th century than many other polities. After this Third Intermediate period (c. 1069–664), Egypt was often ruled by foreign dynasties, of Libyan and later Nubian origin. It also became a target for Assyrian imperialism, suffering invasions by **Esarhaddon** in 674 and again in 671, when he conquered Memphis and replaced the Nubian king Taharka with governors. Taharka rebelled against Assyria, prompting the punitive expedition in 667 by **Ashurbanipal**, who defeated Taharka and installed Necho of Sais, initiating the Saite period (664–525). The collapse of Assyria brought **Babylonia** to the fore, and **Nebuchadrezzar II** used the usurpation of the Egyptian throne by Amasis as a pretext for a campaign to reinstate the previous incumbent, Apries, which was not successful. The end of Egypt's independence, like that of Babylonia, was brought about by the **Persians** soon after the death of Amasis. It became a satrapy of the **Achaemenid empire** until it was conquered by **Alexander the Great** in 322 and was ruled by the descendants of his general Ptolemy until Julius Caesar made it a Roman province in 46 B.C.

ELAM. Region in southwest Iran, presently known as Khuzistan. Its geographical position, at the edge of the Iranian plateau and within the alluvial plains of the Karun and Karkheh rivers, tributaries of the **Tigris**, gave this area access to the central Iranian highlands, as well as the Persian Gulf and the southern Mesopotamian plains. During the prehistoric period in the fifth and fourth millennia B.C., there were strong cultural links with southern Mesopotamian sites.

The inhabitants of Elam called themselves *haltami* (*elamtu* in **Akkadian**). They spoke a **language** (Elamite), not connected with any other known language, that they began to write in **cuneiform** in the mid-third millennium.

The country is first mentioned in **Sumerian** inscriptions from the **Early Dynastic period**; **Eannatum**, for instance, reports that he conquered Elam (in the 25th century B.C.). There were several dynasties in Elam, one, dominated by the **city** of Awan, defeated **Ur** and thus was included in the **Sumerian King List**. **Sargon of Akkad** (reigned 2340–2284 B.C.) incorporated the Susiana into his empire where he appointed his own governors. **Naram-Sin** (reigned 2260–2224 B.C.) concluded a treaty with the **king** of Awan, which was preserved in the temple of the Elamite **god** Inshushinak.

According to an Elamite king list, the dynasty of Awan was followed by that of Shimashki, a city in the mountains of Luristan. The southern part (Susiana) was under the control of the **Third Dynasty of Ur** until c. 2004, when Kindattu, a king of Shimashki, invaded Ur and took **Ibbi-Sin** prisoner. Kindattu called himself “king of Anshan and Susa.”

The next phase is known as the period of the *sukkalmah* (the title of governors during the Third Dynasty of Ur) (c. 1970–1500). At that time

Akkadian was adopted as the official language, although few documents survive.

The so-called Middle Elamite period (1500–1100) saw the rise of Elamite power. Under the Igehalkit Dynasty, Elamite became once more the main written language. King Untash-Napirisha (reigned 1275–1240) built a new capital, Dur-Untash (modern Choga Zanbil). His grandson Kiden-Hutran (reigned 1235–1210) raided **Babylonia**, where he destroyed a number of cities. From then Elam was closely involved in the history of Babylonia.

A new dynasty (the Shutrukides) was founded by Hallutush-Inshushinak (c. 1205–1185). The kings continued their raids against **Kassite** Babylonia, and **Shutruk-Nahhunte I** sacked and plundered **Babylon** in 1185. Among the booty were several ancient Mesopotamian monuments, such as the stele of **Hammurabi**. This success only spurred further campaigns against Babylonia that resulted in the demise of the Kassite Dynasty in 1155. The most important Elamite king of this dynasty was Shilhak-Inshushinak (reigned 1150–1120), who enlarged the territories to the north and the northwest. The Babylonian king **Nebuchadnezzar I** (reigned 1126–1105) launched a successful attack against Elam, where he recovered the abducted statues of the god **Marduk** and his divine consort Sarpanitum.

Elamite history for the next few centuries is obscure due to the almost total absence of written sources. Then, during the last phase, the Neo-Elamite period (eighth–seventh centuries B.C.), Elam became closely implicated in the conflict between **Assyria** and Babylonia. Elam took advantage of Babylonian weakness by invading its territories and also joined in anti-Assyrian coalitions with Babylonia. The Elamites gave asylum to **Sennacherib**'s archenemy **Merodach-baladan** and even kidnapped (and probably killed) the Assyrian crown prince whom Sennacherib had put on the throne of Babylon (c. 692). When they also assisted **Shamash-shuma-ukin** in his revolt against **Ashurbanipal**, the Assyrian king vowed vengeance against Elam. The armies of the Elamite king Tepti-Humban-Inshushinak (Teumman in the Assyrian **annals**) invaded Assyrian territory; Ashurbanipal pursued them and won a decisive victory near the river Ulay. He then ravaged the Elamite countryside and destroyed Susa, returning with enormous booty.

The final years of the Neo-Elamite period are not well documented; internal intrigues and coups continued to upset the political balance as in the preceding generation.

The **Medes** finally put an end to Elamite independence around the mid-seventh century B.C.

EMAR (TELL MESKENE). Town in Syria, some 100 kilometers east of **Aleppo**, excavated by Jean Margueron in the 1970s and by a Syro-German mission under Uwe Finkbeiner since 1996. Situated on a bend on the

Euphrates river, it was an important **trade** center between Syro-Mesopotamia, the Mediterranean, and **Anatolia** from the mid-third millennium. It was mentioned in the **Ebla archives** and those of **Mari**, which show that it belonged to the kingdom of **Yamhad**. According to mainly **Akkadian** sources from the site itself, it was under **Hittite** domination during the 13th and early 12th centuries. A collection of tablets within the house of a priest yielded important information on local rituals.

ENHEDUANNA. Daughter of **Sargon of Akkad**. An inscription on a small limestone disc found at **Ur** records her dedication as *entum* priestess of the moon **god** Nannar-Suen at Ur. She may have been the first of a long line of royal princesses who held this prestigious position. Enheduanna also appears as the author of several literary works, such as the “Sumerian Temple Hymns” and an enigmatic text known as *nin-me-sar-ra* that seems to relate to the political tensions between Ur and **Uruk** during her period of office.

ENKI (AKKADIAN EA). Sumerian god of the “Deep” (Abzu) whose main sanctuary was at **Eridu**. He was one of the most important deities, together with **Anu**, **Enlil**, and **Inanna**, and mentioned prominently in the earliest god lists. He was the son of An and the old mother goddess Nammu and, according to some sources, the twin brother of **Ishkur**.

Enki plays a prominent role in Sumerian mythology. On the one hand, he represents the potential fertility of the groundwater; the “water” of his penis is said to have filled the **Tigris** and **Euphrates**, and his copulations with a succession of nubile goddesses led to the extension of fertility on the primordial land **Dilmun**. His superior intelligence is the subject of other narratives; he knows how to rescue the doomed Inanna and advises other heroes in distress. On the other hand, his weakness for drink results in the loss of the *me* (divine prerogatives and powers) to Inanna and in the creation of abnormal human beings.

ENLIL (AKKADIAN ELLIL). Sumerian god, one of the most important Mesopotamian deities since the early third millennium B.C. His name is usually taken to mean “Lord (of the) Air/Wind” and denotes that his domain was the earth, above that of the “below” (Abzu) ruled by **Enki**. Enlil controlled the weather and hence the fertility of the land by wind and rain. As such, he has characteristics of the weather gods that feature so prominently in those regions where **agriculture** depended on annual rainfall.

In **Sumer**, Enlil also played a more political role, as the “leader of the gods” who presides over the “divine assembly.” It was he who conferred legitimate kingship on a **city** and its ruler; this was known as *ellilutu*, “Ellil-ship,” since the **Old Babylonian period**.

His main **temple** was the Ekur at **Nippur**, one of the most important sanctuaries in Mesopotamia. In the myths he is described as the one “who controls the fate” and who is in possession of “Tablets of Destiny”; the seducer of the young goddess Ninlil, who became his wife; and the god whose repose is continually disturbed by humankind’s clamor. In the flood myths, it is always Enlil who decides to eradicate all human beings.

In **Babylonia**, he came to be eclipsed by **Marduk**, who assumed most of Ellil’s prerogatives and powers. *See also* RELIGION.

ENILIL-NADIN-AHI (REIGNED C. 1157–1155 B.C.). Last **king** of the **Kassite Dynasty** in **Babylon**. According to an inscription on a **boundary stone** and later historical chronicles, he led a campaign against **Elam** and suffered a crushing defeat by Kudur-Nahhunte, bringing the Kassite Dynasty to an end.

EPONYM CHRONICLES. These were lists drawn up of the names of **eponyms** who gave their name to a year, augmented by a brief comment on specific events during the year, such as eclipses. The earliest extant Eponym List only enumerates the officials’ names and covers the years before and during the reign of **Shamshi-Addu I** (c. 1813–1781 B.C.). Another fragmentary text lists eponyms from about 1200. A consecutive listing covers the years 910–649. Eponym chronicles, together with the royal **annals**, form the backbone of **Assyrian historiography**.

EPONYMS. In **Assyria**, since the **Old Assyrian period**, there was a dating system in which years were named after an important official (Assyrian *limmu*). Lists were then kept that enumerated the sequence of eponyms (*see* EPONYM CHRONICLES). In the **Middle Assyrian period**, kings held the office in their second regnal year; it then passed on to senior officials of state in a regular pattern, including provincial governors. After a reign of 30 years, the king became eligible once again, and the cycle began a second time. While this sequence was fixed, individual candidates still had to be chosen. Apparently this was done through some random decision-making process, such as the rolling of dice.

ERESHKIGAL. Goddess of the underworld. Her name, “Lady of the Great Place,” refers euphemistically to the Land of the Dead, which the Mesopotamians also dubbed “Land of No Return.” According to the myths, she was the older sister of **Inanna**, the “Lady of the Heavens,” who desired to extend her influence “below.” Ereshkigal punishes Inanna’s incursion into her domain with death but is tricked to surrender her corpse to the flattery of some transsexual creatures.

In the **Old Babylonian period**, Ereshkigal lost her sovereignty to the male deity **Nergal**. A myth describes how the lonely goddess gladly

surrendered her old independence to rule the underworld with Nergal. Her main sanctuary, and also that of Nergal, was at Kutha.

ERIDU (MODERN ABU SHAHREIN). South Mesopotamian **city**, regarded by **Sumerian scribes** as the oldest city in the world, where “**kingship** came first from heaven.” The kings of Eridu, according to the **Sumerian King List**, all enjoyed phenomenally lengthy reigns; the first, Alulima, for 28,800 years, the second for 36,000 years.

In historical times, Eridu was never the seat of a dynasty. Its importance was **religious** rather than political, as the site of the main sanctuary of **Enki**. Numerous Mesopotamian kings contributed to the buildings at the site, which reached its greatest size during the time of the **Third Dynasty of Ur**. It became deserted in the 18th century B.C. The cult of Enki continued to be maintained at other shrines, notably at nearby **Ur**.

The archaeological excavations by the Iraqi Department of Antiquities in the 1940s revealed a long sequence of buildings, one above the other, which began in the **Ubaid period**, around 4900 B.C. There are altogether 18 building levels of what came to be known as the Eunir, the temple of Enki. *See also* KURIGALZU I.

ESARHADDON (ASHUR-AHHE-IDDINA IN ASSYRIAN; REIGNED 680–669 B.C.). **Assyrian king**, son and successor of **Sennacherib**, who had been assassinated in a palace coup. According to Esarhaddon’s own inscriptions, his father had destined him, though the youngest, to be his heir in view of the fact that his eldest son had died in **Elam**. In the ensuing fight for the throne, Esarhaddon prevailed and was crowned at **Nineveh** on the eighth of Adar 681.

The main event of his career was the invasion of **Egypt**, which had changed its policy from being pro-Assyrian to fomenting revolts. In 671, after an abortive first effort three years before, he crossed the desert of Sinai with the help of **Arab camels** carrying water for the troops and fought three victorious battles against the Egyptians. He seized Memphis and took the son of the pharaoh Taharka prisoner.

Esarhaddon had to repress numerous rebellions, such as that of Sidon in 677. He also had to campaign in **Anatolia**, where nomadic **tribes** from the east, the Cimmerians and Scythians, caused a good deal of trouble in Assyrian provinces. Toward **Babylonia** he pursued a policy of appeasement and began a program of reconstruction and redevelopment; he resettled exiled inhabitants and restored to them their property. Esarhaddon also rebuilt the **temple** precinct of **Babylon** that had been destroyed by Sennacherib.

Wary about the difficulties of a peaceful transition of power to his sons, he drew up a document affirming the succession of his younger son **Ashurbanipal** that stipulated that the older brother and crown prince

Shamash-shumu-ukin was to be king of Babylon. All his vassals and the Assyrian nobility were sworn by **oath** to honor this proclamation. It was to be the cause of a bloody war between the brothers, which devastated Babylonia. In 669, Esarhaddon died on campaign on the way to Egypt.

ESHNUNNA (TELL ASMAR). Mesopotamian **city** in the Diyala valley in the east **Tigris** area. The site was excavated by **Henri Frankfort** in the 1930s. It proved to have been inhabited since the fourth millennium B.C. and grew in importance in the **Early Dynastic periods II and III**. Eshnunna experienced its greatest growth between 2000 and 1800, during the **Isin-Larsa period**. After the fall of the **Third Dynasty of Ur**, it became the capital of a small independent kingdom called Warum. According to the **archives** found at **Mari**, the **kings** of Eshnunna also engaged in the armed rivalries for supremacy that characterize this age. An interesting document from the last king of Eshnunna, Dadusha, is a collection of laws regulating commercial activities and social relations. The same king was eventually defeated by **Hammurabi of Babylon** in c. 1763 B.C.

EUNUCHS. Eunuchs played a significant role in most ancient Near Eastern **administrations**, although the scholarly debate over the meaning of terms denoting “eunuch” (Sumerian *LÚ.SAG*; Akkadian *sa resi*) continues.

In the textual material from Mesopotamia, eunuchs are attested from **Old Babylonian** times on in various positions, ranking from high **palace** officials to servants in private households. The most significant and complex evidence comes from **Assyria**, and it is no surprise that the classical tradition attributes the origin of eunuchs to the legendary **Assyrian** queen Semiramis. From the Middle Assyrian laws, we learn that the penalty for adultery and homosexuality was “to turn him into a eunuch.” The Assyrian Palace Edicts from the same time show that eunuchs had access to the royal court and harem. In the texts from the **Neo-Assyrian** empire, eunuchs and “bearded ones” are mentioned side by side as terms for state officials, and eunuchs occur without beards on the Assyrian palace reliefs.

As in other civilizations, eunuchs probably came from elite families and were chosen at an early age for a court career. They became high-ranking officers in the Assyrian **army**. The “Chief of the Eunuchs” sometimes even led the whole Assyrian army on a campaign (e.g., Mutarris-Ashur under Shamshi-Adad V). Others held important offices in the central and the provincial administrations. Outside the palace administration, eunuchs occupied various professions, such as **scribes**, musicians, and actors. It is not known whether all of them were **slaves** or whether there were free men among them.

EUPHRATES. Together with the **Tigris**, the most important river that defined the borders of Mesopotamia. The Euphrates has its source in the

mountains of Anatolia, which receive substantial amounts of snowfall in the winter. The river was called *purattu* in **Akkadian**, a name that survives in the Arabic form Firat. Its main tributaries are the Balikh and the Habur. Farther south, as the alluvial plains begin and the gradient of the land becomes very low, the Euphrates carved out a number of subsidiary beds and side arms. It was an important means of communication by boat and less turbulent than the Tigris.

While the upper reaches of the Euphrates were situated in the **Fertile Crescent**, where rain-fed **agriculture** was possible, south of present-day Baghdad began the dry zone. The Euphrates was one of the main sources of water that was channeled into numerous man-made canals. While most Mesopotamian **cities** were situated on side arms of canals, some, including **Nippur** and **Babylon**, lay directly along the main course of the river. Because of the low gradient of the plains and the soft soil, the river was liable to change course, sometimes drastically, and nowadays neither **city** lies in the vicinity of the stream.

FALKENSTEIN, ADAM (1906–1966). German Assyriologist. He was instrumental in defining the linguistic structure of **Sumerian**, having worked on a wide range of textual sources, from archaic texts of the **Uruk period** (*Die archaischen Keilschrifttexte aus Uruk*, 1936) to **Early Dynastic royal inscriptions** (*Grammatik der Sprache Gudeas von Lagasch*, 1949–1950) and incantations (*Haupttypen der sumerischen Beschwörung*, 1931). He taught at the Universities of Göttingen (from 1940) and Heidelberg (from 1949).

FAMILY. The basic constituent of Mesopotamian **society** was the patriarchal family. **Administrative** documents from the major sites recorded people's names and affiliation, but it is still difficult to get a clear picture of the family sizes and patterns of residence at any given period.

From the archaeological record, it appears that extended families encompassing several generations and more than one couple with children were common in later prehistoric periods (*see* CHALCOLITHIC; URUK PERIOD). This can be deducted by the size of habitations, the number of fireplaces, and the number of individuals buried beneath the floor of houses. Such extended families formed productive units, pooling their labor and sharing resources. On the other hand, nuclear families, consisting of a couple with their (young) children, also existed, especially within larger groupings.

There is no doubt that the several forms of family organization developed early, in response to different subsistence activities and social configurations. They persisted into later, historical periods. There is evidence from the **Early Dynastic period** that large households (*oikos*) were common (*see* SHURUPPAK), which included not only the members of the family but also servants and **slaves** (*see* ECONOMY). They could generate substantial revenues from enterprise, both commercial and agricultural. The land held by such a household could only be sold if all the male adults agreed, as sale contracts from the **Akkad** period document.

The large state organizations (*see* PALACE) and the **temples** employed people of all ages and genders. **Women** and their children would work together in the manufactories of the **Third Dynasty of Ur**, for instance, producing **textiles**. Small family units could work on plots assigned to them by these organizations for a fixed percentage of the harvest. When a family experienced crop failures and could not meet their obligations, they had to take loans of silver or grain at often usurious rates. If the loans could not be

paid either, the head of the family could pledge his own labor, and that of any of his children or his wife, or, in a more desperate move, sell them into slavery to raise capital.

Excavations at **Nippur** have shown how in the **Old Babylonian period** wealthy, professional families lived in spacious houses, with domestic slaves, which in later, more difficult times were partitioned and occupied by poorer, more numerous families.

In the **Neo-Babylonian** period, family firms, such as the Murashu or the Egibi, could conduct lucrative banking and investment business that continued for several generations. Such a practice can also be observed in the early second-millennium import-export family businesses at **Assur**.

Some literary texts as well as proverbs allow some insights into the emotional comfort of family life. In the Old Babylonian version of the **Gilgamesh** epic, the “innkeeper” Siduri advises the hero to seek solace in the embrace of his wife and delight in the presence of his children. The 12th tablet of the epic describes the unhappy fate of the dead who have no children to offer libations for them, and it praises the lucky father of many sons who has an exalted position in the netherworld. Proverbs warn of the disruptive presence of pretty slave girls in the house and admonish the young to show respect for their elders. *See also* MARRIAGE.

FERTILE CRESCENT. Term coined by Egyptologist J. H. Breasted to describe the geographical area that stretches in the form of a semi-circle from the southeastern regions of the Mediterranean Sea, including **Egypt**, across Syria and **Anatolia** to Mesopotamia, leaving the dry expanses of the Arabian desert in the middle. It is determined by the line of a 200-millimeter rainfall isohyet, which can support **agriculture** without irrigation, and is the homeland of most of the plant and animal species first domesticated in this region.

FESTIVALS. Feasts and festivals are celebrated in all cultures; they are defined by their reason or purpose, their rituals, and whether they are celebrated at regular intervals of time or occasioned by special events. Furthermore, there is a difference between feasts that are (1) personal and private (rites of passage such as weddings or funerals), (2) public and royal (enthronement of **kings**, victory celebrations), or (3) religious. Overlaps between these categories can occur in Mesopotamia, where religion permeated all aspects of daily life and there were no purely “secular” feasts.

1. Private feasts. **Sumerian** poetry and myths allude to the preparations and celebrations of **marriages**. The groom was to ask the bride’s parents for permission to wed. He then brought wedding gifts according to his station. The bride, having bathed and adorned herself in the wedding finery, was received with music into the house of her groom’s family, where the feast was celebrated. There are also a number of reliefs from the third

millennium B.C. that show people seated on low chairs and drinking beer together through a straw. Whether such scenes illustrate special occasions or daily conviviality is not clear. Coming-of-age ceremonies are not attested in Mesopotamia, and there were no age group associations.

2. Victory celebrations and enthronement are also known from literary sources. In particular, the myths associated with the **god Ninurta** describe the awe-inspiring march of the victorious troops toward the main **temple**, where the spoils of war were dedicated to the gods. **Assyrian** inscriptions refer to splendid feasts for the official opening of a new palace or royal residence; **Ashurnasirpal II** famously invited 69,574 to the inauguration party at **Kalhu**. Other public festivals related to the agrarian cycle, such the preparation of the fields, or bringing in of the harvest.

3. A large number of religious feasts were held in Mesopotamia (*see* RELIGION). The names of many festivals are known, as well as the expenses they incurred, but the written sources say very little about their purpose or the rituals performed since such knowledge was taken for granted. However, texts such as the Neo-Sumerian offering lists provide some information about the main religious festivals organized by the temples. Some were fixed and some were variable, and they often concerned the movement of the divine statue from one temple to another. The timing of feasts could depend on their agrarian significance (many of the journeys of divine statues coincided with important seasons) or the lunar, solar, or Venus cycle. Processions outside the temple, or between temples, accompanied by musicians and dancers, and the clergy in their specific paraphernalia, were the most visible manifestation, along with the distribution of extra food and drink allowances to the personnel and/or the citizens at large.

The best-known festival that originated in **Babylon** was the New Year Festival (**Akitu**), which lasted 12 days. It was mainly performed in the huge temple of **Marduk** called Esagil. The king's presence was of vital importance as he guaranteed the divine order decreed by the gods. He may have played an active part in the playing out of the main events of the Epic of Creation (*see* CREATION MYTHS), such as the battle between Marduk and Tiamat. The king had to make a negative confession ("I have not sinned, I have not been negligent of your godhead, I have not destroyed Babylon . . .") and was struck across the face hard enough to cause tears. Another important aspect was the arrival of all the major **Babylonian** deities. On the ninth day began the public phase of this festival, where all the assembled gods and goddesses, led by the king holding the hand of Marduk, processed with great pomp along the Festival Way and embarked on boats to reach the Festival House that was located beyond the city walls. The New Year festival was a public holiday for all Babylonian citizens, who could watch the processions, complete with the display of war booty and prisoners, and partake of the banquets. It arose from the traditional

barley harvest celebrations of early spring, and the rituals served to confirm the divinely decreed order of the universe after the potentially dangerous liminal period between the ending of one year and the beginning of the new. The New Year festival was also celebrated in **Assyria**, where the god **Assur** played the role of Marduk.

FIRST DYNASTY OF BABYLON (C. 1894–C. 1595 B.C.). A historical period in which the city of **Babylon** first became the political center of Mesopotamia. The dynasty was founded by Sumu-abum, an **Amorite**; hence, it is also sometimes referred to as the Amorite Dynasty.

At the beginning, the rulers of Babylon controlled only a small territory around the city since there were several competing political configurations in Mesopotamia, such as **Larsa**, **Isin**, **Eshnunna**, and **Assyria**. It was the sixth **king, Hammurabi** (reigned 1792–1750 B.C.), who triumphed over all these rivals. Babylon became the capital of a powerful kingdom with roughly the same borders as that of the **Third Dynasty of Ur**. The **administration** of the state was modeled on the one set up by **Rim-Sin** of Larsa. Literacy was widespread, and the king was kept informed about all manner of governmental details. It was a characteristic of Amorite kings to remain approachable to their subjects and to rule more in the manner of a traditional sheikh than an exalted king. They were also much concerned with the promulgation of laws and legal statutes and that justice was upheld in the land. The final legal instance was the king himself.

The Babylonian state was less highly centralized than that of Ur during the Third Dynasty. It employed private middlemen rather than bureaucrats to ensure the collection of revenue. Some documents of the time also mention a special category of semifree citizen, the *mushkenum*, whose status was neither free nor that of a slave and who were possibly persons tied to the palace.

The most important rulers of the First Babylonian Dynasty were Hammurabi and his successor, **Samsu-iluna**, who ruled for 37 years (1749–1712 B.C.). During the latter's reign, the territorial integrity of the kingdom disintegrated; the south became independent under the leadership of the **Sealand** (c. 1742), and a new people from the east, the **Kassites**, settled in increasing number in the northern and northeastern regions of Babylonia. Economic problems, due to the deteriorating ecological situation in the south, loss of access to the sea, and tribal unrest, contributed to unstable conditions that affected some cities more than others. Royal edicts releasing public and private debts indicate that many people were affected by the inability to meet debt payments.

The demise of the First Babylonian Dynasty resulted from a surprise raid by the Hittite king **Mursili I** who marched down the **Euphrates** and attacked Babylon. The date of this event is traditionally given as 1595 B.C., although more recently a revised date of 1499 has been proposed.

FIRST DYNASTY OF ISIN (C. 2017–C. 1794 B.C.). After the fall of the **Third Dynasty of Ur**, the center of power shifted farther north to the city of **Isin**, where the erstwhile **Ur** governor **Ishbi-Erra** founded a new dynasty to carry on the traditions of Mesopotamian kingship. Although the territory controlled by Isin was much smaller than that of the Ur kingdom, it preserved the institutional structure and the ideological basis of the former state. One of its rulers, Enlil-bani (reigned 1860–1837 B.C.), was originally a gardener who was appointed as “substitute **king**” during an inauspicious time for the incumbent king who happened to die during this period. It was at this time that the **Sumerian King List** received its final form. Throughout the history of the Isin dynasty, it vied for supremacy with the city of **Larsa**. Eventually, Isin’s importance declined until it was swallowed up in the new state founded by **Hammurabi** of **Babylon**.

FOOD. The people who lived in Mesopotamia during the prehistoric periods (*see* **CHALCOLITHIC**; **NEOLITHIC**) enjoyed a varied diet procured from hunting the plentiful wild sheep and other mammals, fishing, fowling, and the gathering of legumes, nuts, and wild as well as domesticated cereals.

Once a predominantly settled and, later, urban lifestyle was adopted, this diversity declined, and people relied predominantly on cereal staples (mainly **barley**), in the form of porridge or bread. The vitamin and mineral content of this monotonous diet could be enhanced by vegetables such as lettuces, gourds, onions, garlic, and pulses that were grown in smaller plots near the city. Of particular importance as a source of energy and vitamins was the date palm, which flourishes in the south Mesopotamian climate. Regular meat consumption (beef, mutton, pork, and game) was the preserve of the wealthy; the poorer members of society consumed fish for protein, widely available in dried form. A fermented fish sauce was the most popular condiment in Mesopotamian kitchens.

Dairy products such as clarified butter, cheeses, and fresh and fermented milk were also available, either produced on the great estates of temples or brought to the market by pastoralists. Sesame and linseed were used for oil, both for cosmetic and culinary purposes. The most popular and nutritious drink was **beer**, which was available in different strengths. The wealthy imported wine from Syria and the Levant. Sweet dishes were prepared with concentrated date syrup, usually translated as “honey.” Mesopotamians were also fond of fruit, such as medlars, apples, apricots, and grapes, as well as nuts.

A cooking manual by a **Babylonian** master chef has survived from the 17th century B.C. and makes it clear that the preparation of meals in elite households (and temples) was a complex task. Meat was sautéed, broiled, and stewed, sometimes undergoing all these stages for one dish. Sauces were as important as in classic French cooking, being composed of several different kinds of meat, bones, vegetables, and condiments that were boiled,

strained, and reduced. The final presentation involved dumplings and dough crusts, fresh herbs and onions, with the meat being served separate from the sauce and vegetables. *See also* AGRICULTURE.

FORTIFICATIONS. Since the purpose of fortifications is the protection of inhabitants and goods inside a building or a settlement, the most durable materials available were chosen for their construction. In most areas of the ancient Near East, this was stone. In the alluvial plains of Mesopotamia, mudbrick was used but in sufficient thickness to make attacks difficult. Urban installations were vulnerable because of their stored grain and other valuables. As early as the **Uruk period**, towns in the more exposed regions were surrounded by rectangular defensive walls, with towers and gates. In the **Early Dynastic period**, when rivalries between **cities** in Mesopotamia became widespread, such installations became a common feature of all cities. The best known is the city wall of **Uruk**, which was nearly 9.5 kilometers long.

The **Sumerian** text “**Gilgamesh** and the Agga of Kish” describes the conflict between Uruk and **Kish** and the psychological stratagems used to win access to well-defended cities.

In the Iron Age, technologies of **warfare** became more advanced as the machinery and tools for attack became more durable than the earlier **bronze** weapons. As a result, the fortifications became stronger, with regularly spaced watchtowers and projection bastions, crenellations, and gate towers with lateral guard chambers. In the more rocky regions (e.g., **Assyria**), fortifications were built on stone outcrops and steep hillsides (e.g., at **Assur**). In the mid-first millennium, **Nebuchadrezzar II** built the famous walls of the capital **Babylon**, an undertaking made even more challenging by the fact that the river **Euphrates** ran right through the city. The walls close to the water had to be constructed of baked brick, in places up to 25 meters thick. According to the descriptions of **Herodotus**, the walls were wide enough for two teams of horse-drawn chariots.

FOUNDATION DEPOSITS. Whenever a major public building, such as a **temple** or a **palace**, was constructed or substantially renovated, it required not only careful planning and divine approvals (*see* DIVINATION), but also a variety of rituals to endow the construction with durability. Archaeologists have discovered the remains of foundation rites in numerous buildings, and **cuneiform** sources describe the procedures involved. The practice also allowed rulers who organized and financed such costly undertakings to perpetuate their names by having written records interred within the foundation levels, at first in the form of inscribed clay pegs, then on tablets, sometimes made of stone or precious metals. These remains have proved most helpful to identify the name, function, and date of particular buildings, apart from any other historical information they

may contain. *See also* ARCHITECTURE.

FRANKFORT, HENRI (1897–1954). Dutch-born archaeologist who emigrated to the United States in 1944. He undertook excavations at important sites in the Diyala valley for the Oriental Institute of Chicago in the 1920s and 1930s (*see* ESHNUNNA). In 1949 he became director of the Warburg Institute in London. He is best known for publications of **religion** and **art** history (*Kingship and the Gods*, 1948; *Ancient Egyptian Religion: An Interpretation*, 1948; *The Art and Architecture of the Ancient Orient*, 1954). *See also* JACOBSEN, THORKILD; LLOYD, SETON.

FUNERARY AND BURIAL PRACTICES. In the prehistoric periods, a great variety of burial practices existed side by side: inhumation of the whole skeleton, partial inhumation and possible secondary burial after exposure of the body, and cremation. Bodies could furthermore be buried singly or in groups, in a common plot or cemetery, or beneath the floor of habitations. Cemeteries are believed to reveal a special claim that a particular group of people could make of a territory and its resources. The more or less equal treatment of the mortal remains may reveal an egalitarian social system, while the burial of children in special plots may point to elite formation.

Bodies in earthen or stone graves could be accompanied by sets of tools, such as flint knives, or personal ornaments, such as beads. Traces of red color are also frequently found on bones, indicating some color symbolism. In the **Ubaid period**, the graves at **Eridu** contained rich grave gifts, such as exquisite miniature pottery sets, anthropomorphic clay figurines, joints of meat, and jewelry. Some people had been buried with a dog that was given a bone.

In historical times, the variety of burial practices declined. Inhumation of the whole skeleton became the norm for Mesopotamia. Intramural burials continued to be popular, but populous cities also had cemeteries outside the city walls, such as at **Ur**. In early periods, people were placed flat on the back, with their hands folded across the chest; later a flexed position, with knees drawn up, became more common. Clay and terra-cotta coffins contained the mortal remains.

The most controversial graves were discovered by **Sir Leonard Woolley** at **Ur**. They date from the **Early Dynastic period** and contained high-ranking, possibly royal personages, surrounded by fabulous gold and inlaid funerary gifts. The **chariots** and the oxen used to transport the dead were also kept in the stone-constructed burial chambers. The presence of a number of other skeletons, predominantly female, holding musical instruments and golden goblets, was interpreted by Woolley as evidence for ritual sacrifice or collective suicide. It has since been suggested that these bodies were manipulated after death and that they are to be considered

secondary burials; the association of their bodies to the main personages was probably a matter of prestige or of some other significance that eludes us. Few other royal graves are known; the hypogeum tombs at Ur did not contain any remains.

Assyrian monarchs were buried at **Assur**. In 1987–1990, Iraqi archaeologists found four vaulted, undisturbed tombs within the palace of **Kalhu** that contained the bodies of two Assyrian queens and a sarcophagus packed with the remains of at least six people, including children. The grave goods, weighing some 50 pounds, comprised precious stones and finely worked **gold** jewelry.

Cuneiform texts refer to funerary rites and beliefs. The dead were thought of as dwelling in the underworld, a gloomy and overcrowded place. Those whose remains were left unburied, and had had no rites performed for their souls, were doomed to haunt the living as ghosts. **Nomads** were also held in contempt by the urban population because they had no grave cults. Of particular importance were libations of water, which the eldest male of a household poured out for the ancestral spirits on the family altar.

The myth “**Inanna’s** Descent into the Underworld” makes it clear that mourning ceremonies were expected, which involved the temporary disfigurement by ashes and the donning of mourning clothes. Inanna’s lover **Dumuzi** is banished to the underworld for failing to behave in the proper way.

The Mesopotamians did not have eschatological beliefs of a Last Judgment, nor did they expect to enjoy some form of eternal life as did the Egyptians. They did not expend vast sums on their tombs, nor did they practice embalming. Their best expectation was to have peace of mind after a customary burial and to have raised enough offspring to bring libations to stave off the thirst of death. *See also* ARCHITECTURE; RELIGION.

GELB, IGNACE JEREMIAH (1907–1985). Polish-born American Assyriologist, based at the University of Chicago, where he initiated the Chicago Assyrian Dictionary project. He was particularly interested in **Akkadian** language and grammar (*Old Akkadian Writing and Grammar*, 1952) and the development of writing (*A Study of Writing: The Foundations of Grammatology*, 1952).

GILGAMESH. 1. Sumerian king of the **Early Dynastic period** who appears in the **Sumerian King List** as a king of **Uruk**. There is as yet no contemporary evidence for his reign, but Gilgamesh is mentioned among the deified rulers in the **Shuruppak** tablets from the 25th century B.C. 2. Eponymous hero of several Mesopotamian literary compositions, the best known of which is the Epic of Gilgamesh (see below).

One Sumerian narrative that was not incorporated into the epic concerns Gilgamesh's fight against Agga of **Kish**, whose historicity is assured by a short inscription on a vase discovered at Kish. The forerunners to the epic are preserved in four Sumerian versions:

- “Gilgamesh and the Land of the Living” describes the journey Gilgamesh undertakes with his servant Enkidu. They go to the Cedar Forest, which is sacred to the **god Enlil** and protected by a demonic creature called Huwawa. The heroes cut down the cedar trees and kill the captured Huwawa.
- “Gilgamesh and the Bull of Heaven” is preserved only on fragments. The **goddess Inanna** proposes **marriage** to Gilgamesh. When he rejects her offer, she sends the mighty Bull of Heaven to avenge the insult, but the beast is killed by Gilgamesh.
- “Gilgamesh, Enkidu, and the Netherworld” begins with an account of the sacred *huluppu* tree that Inanna had planted in her garden at Uruk. She wants to use its wood to fashion a bed and a throne but is unable to fell the tree. Gilgamesh manages to drive out its demonic squatters (a snake, a lion-headed eagle, and a female demon), and as a token of gratitude the goddess gives him two magical objects made from the timber. These objects happen to fall into the underworld, and Gilgamesh's servant Enkidu offers to descend in order to retrieve them. He is given detailed advice on how to behave in the underworld, but he fails to adhere to it and is therefore doomed to remain there forever. Gilgamesh manages to persuade the god **Enki** to summon the

shadow of his servant, who tells him of the conditions in the underworld. Those who have many sons fare well, but those whose bodies lie unburied have no rest (see FUNERARY AND BURIAL PRACTICES).

- “The Death of Gilgamesh” is very fragmentary, and it is not clear whether Gilgamesh’s or Enkidu’s death is described.

The oldest version of the Epic of Gilgamesh dated from the **Old Babylonian period**. Numerous fragments and excerpts from later periods have been discovered in many different parts of the Near East, from Palestine to **Anatolia**. The most extensive source is the so-called Ninevite version, discovered in the library of **Ashurbanipal**’s royal **palace**. It contains some 1,500 lines and is divided into 12 tablets. Most of the themes of the Sumerian versions (except for the Agga of Kish story) have been worked into the epic, as well as other narratives, most notably that of the flood.

Gilgamesh is portrayed as two-thirds man and one-third god, endowed with supernatural strength. He so oppresses the citizens of Uruk that they pray to the sky god **Anu** to help them. Anu responds by ordering the mother goddess to create Enkidu, a wild man who roams the uncultivated lands in the steppe, where he runs with the animals and frees them from the hunter’s traps. News of this strange and entirely hairy being is brought to Gilgamesh, who sends a prostitute to charm him. Her mission is successful; after a week of ardent love-making, Enkidu tastes human **food** and finds himself alienated from his former companions, the animals of the steppe. He follows her to Uruk, where he meets Gilgamesh, who had portentous dreams about him. After a bout of wrestling, they become the best of friends. Then follows the story of the expedition into the Cedar Forest, more or less as told in the Sumerian narrative of the Land of the Living, where they cut down the cedars and kill the demon Humbaba (= Huwawa).

When they return in triumph to Uruk, the goddess **Ishtar** appears and invites Gilgamesh to become her consort. As in the Sumerian tale, he rejects her offer with frivolous taunts. The Bull of Heaven, sent down to avenge her wounded pride, is killed by the heroes. Enkidu now falls sick and dies, which deeply affects Gilgamesh: he is so overcome with grief and fear of his own death that he renounces the exercise of **kingship**.

Dressed only in a lion skin, he roams the wilderness, hoping to find Utnapishtim, the man who survived the flood and whom the gods had granted eternal life. He passes mountains and strange lands and eventually arrives at a garden of precious stones, where the ale-wife Siduri lives. He tells his story, and although she advises him to abandon his futile quest and enjoy the simple pleasures of human life, she tells him how to proceed.

Gilgamesh arrives at the river, where he finds a ferryman who after some pleading agrees to ferry him across. Utnapishtim then tells him the story of

the flood, which only he and his wife survived. He puts Gilgamesh to a test to refrain from sleep for seven nights. The hero falls fast asleep. Utnapishtim gives him clothes that won't wear out, and Gilgamesh decides to return to Uruk, accompanied by the ferryman. As a final gift, Utnapishtim presents them with a plant that makes the old young again. It so happens that a passing serpent eats the plant, shedding its skin as it slithers away. With empty hands Gilgamesh returns to Uruk. He makes the ferryman climb the ramparts of the city and surveys his domain. The 12th tablet adds the story of the encounter between Gilgamesh and the spirit of Enkidu, who tells him about conditions in the underworld.

GIRSU (MODERN TELLO). Important **city** in southern Mesopotamia during the third millennium B.C. It was initially thought to be the site of **Lagash**, but it became clear that Girsu was some 20 kilometers to the north. During the **Early Dynastic periods** I and II, Girsu may have been the political center of Lagash. In later periods, it had a primarily **religious** role as it housed the **temples** of Ningirsu and Bau. Archaeological excavations by French teams between 1877 and 1933 yielded important **cuneiform archives**, numerous **cylinder seals**, and statuary, among them the Stele of Vultures by **Eannatum** and the statues of **Gudea**.

GODS AND GODDESSES. As in all polytheistic religions, a great number of deities were worshipped in Mesopotamia throughout the ages. Most people had names composed with that of a god or a goddess. This serves as a useful indication of the popularity of a particular deity at a given time. To what extent the theomorphic element of a person's name allows conclusions about his or her ethnic affiliation is less clear.

Already in the **Early Dynastic period**, **scribes** attempted to bring some order to the confusing number of known deities by compiling lists of divine names. They also introduced a ranking order by beginning the lists with the major gods, such as **Anu**, **Ea**, **Enlil**, and **Inanna/Ishtar**, and ending with more obscure ones. Many of these names are known only from such **lexical lists** that preserved the most ancient entries while adding new ones.

Each Mesopotamian **city** had its own patron deity. The deities resided in their "homes on earth," the **temples**, and received daily offerings of **food**, drink, incense, and other gifts, such as **textiles** and jewelry. The deities did not live in isolation in the temple but enjoyed a **family** life. Divine couples shared a bed-chamber, while their children and servants were accommodated elsewhere. The statues were also taken on regular outings, touring the country and visiting each other's shrines, especially during the time of the **Third Dynasty of Ur**. Larger cities also had temples of other gods; **Babylon** was known to have had hundreds of temples at the time of the **Neo-Babylonian period**.

Most of the great gods had a particular area of responsibility and

expertise. Anu was the patriarchal head of the pantheon and the lord of the heavens. Ea-Enki was the god of water, also known for his wisdom and creative potential. Nannar-Suen (or **Akkadian Sin**) was the moon god associated with the fertility of cattle, while the sun god **Shamash** was the “judge” and safeguarded justice and fairness on earth. There were also mother goddesses, blessing fields and **women** with fertility and protecting women in childbirth; healing gods to ward off evil influences and speed up recovery; and weather gods who brought storms and rain.

Mesopotamian attitudes toward the gods were often ambiguous; they were feared as much as loved, since gods were considered to be fundamentally unpredictable and even capricious. Enlil could send just the right amount of rainfall or cause devastating floods; Ishtar could enhance sex appeal but also cause impotence. Inversely, a god of pestilence and fever could also be invoked to combat such afflictions. Many rituals and incantations, especially from the late second and first millennia B.C., were devised to soothe the hearts of “angry gods” and to harness their divine powers in the constant battle against malevolent influences.

During the **Old Babylonian period** developed the notion of a “personal god,” who, like a guardian angel, was responsible for a particular human being. He (or she, for women) would intercede with higher-ranking gods and plead the case of the patron. On the other hand, the personal deity was adversely affected by his or her charge’s ritual impurity or sinfulness.

Some deities had strong connections with **kingship**. In the third millennium B.C., Enlil legitimized the control over the country; in the second and first millennia, this was **Marduk** in **Babylonia** and **Assur** in **Assyria**. The goddess Ishtar was also often quoted as lending invaluable support to a king of her choice (*see* SARGON OF AKKAD).

Foreign deities could easily be integrated into the Mesopotamian pantheon; they could be equated with a similar divine figure (as happened when the Semitic Ishtar merged with the **Sumerian** Inanna) or married to an existing goddess (as in the case of the **Amorite** god Martu).

In the **Seleucid** and later **Parthian period**, some Babylonian gods, notably **Nabu** and Bel (another name for Marduk), continued to be worshipped. Only the advent of Islam in the seventh century A.D. brought about the demise of the ancient Mesopotamian gods. *See also* ADAD; BABA; DAGAN; DUMUZI; ENKI; ERESHKIGAL; GULA; ISHKUR; LUGALBANDA; NABU; NERGAL; NINGAL; NINHURSANGA; NINURTA.

GOLD. In Mesopotamia, gold ornaments first appeared in the **Ubaid period** sites (fifth millennium B.C.). Like all **metals**, it had to be brought into the country from far afield, such as eastern **Anatolia**, part of a loose network of exchange for high-status luxury commodities. It was usually alloyed with **silver** in varying proportions.

In the **Early Dynastic period**, the wealthy **city-states** of Mesopotamia could command a wide range of such articles, and gold plays a prominent part in the **funerary** gifts discovered at the “royal tombs” at **Ur**. Gold objects include not just rings and other items of jewelry but cups, plates, ceremonial daggers, and wig-like head-dresses. The metal had been hammered in thin sheets before being shaped and cut.

Workers of the “shining silver” (**KU.BABBAR** in **Sumerian**) were distinguished from other craftsmen working in metal. Their services were also needed for the fashioning of cult statues, which could be covered with gold foil.

In the mid-second millennium, **Egyptian** gold came to be imported, initially as a high-level exchange between the pharaoh and the **Babylonian kings**, in return for richly worked textiles, inlaid furniture, and war **chariots** (*see* **AMARNA CORRESPONDENCE**). For a while gold was so plentiful that it replaced silver as the standard of exchange. Excavations at **Nimrud** in 2002 brought to light the fabulous gold jewelry of **Assyrian** queens that had been deposited in the royal tombs from the eighth century B.C., including an anklet weighing more than two pounds (*see* **FUNERARY AND BURIAL PRACTICES**).

GUDEA (REIGNED C. 2141–C. 2122 B.C.). Sumerian ruler of Lagash.

Gudea is best known as a patron of the arts and as the builder of a new **temple** at **Girsu**. Among the ruins of this temple were found a number of life-size statues of diorite stone, representing Gudea (*see* **ART**). Some of these statues have lengthy inscriptions that refer to the circumstances of the temple project. Gudea commanded enough resources to furnish the building with sumptuous materials that had to be procured from far afield. There is no indication that Lagash was subservient to any other city-state at that time. Gudea kept peace with his neighbors but undertook raids to Anshan and **Elam** that yielded substantial booty. The literary style of his inscriptions counts as the epitome of classical Sumerian.

GULA. Babylonian healing goddess, identified with the **Sumerian** Ninisina. Her main sanctuary was at **Isin**, and her symbol was a dog.

GUNGUNUM (REIGNED 1932–1906 B.C.). King of Larsa (“whose name sounds like the beat of a battledrum,” according to Georges Roux). He attacked the kingdom of **Isin**, taking **Ur** and with it control over access to the Persian Gulf, and gradually extended his influence in southern Mesopotamia to the detriment of Isin.

GUTI. Tribal pastoralists who inhabited the mountainous regions of the Zagros and the upper valleys of the Diyala River. This northeastern region was known as Gutium throughout Mesopotamian history.

The Guti (or Gutians) were always described in negative terms in the **cuneiform** sources, mainly as the “hordes of Gutium,” “numberless like locusts,” invaders, and raiders of **cities** and countryside. They first appear around 2200 B.C. in the royal inscriptions of **Shar-kali-sharri**, who reports to have captured their “king.” On the other hand, Guti mercenaries also served in the **Akkadian** armies.

According to the **Sumerian King List**, it was the Guti who brought the **Akkadian Dynasty** to an end, and they are said to have furnished 21 **kings**. The sacking of the capital is also blamed on them in the literary composition “The Curse of Akkade.” Just how much territory the Guti controlled is uncertain. There is no evidence of destruction in other **cities** or of a cultural break. It is most likely that the Guti rulers commanded not much more than the area around the Diyala River.

Around 2120, they were defeated by Utuhegal, a king of **Uruk** who reports that he slew the “Gutium, the dragon of the mountains, enemy of the **gods**, who had carried off the kingship of Sumer to the mountains.” The Guti remained the archetypical enemy of Sumerian civilization, at least in literature, as, for example, in the “Lamentation over the Destruction of Ur.”

HABUBA KABIRA. Archaeological site on the river **Euphrates** in northern Syria, excavated from 1969 to 1975 by Ernst Heinrich, Eva Strommenger, and André Finet. The large (18 hectare) site yielded well-preserved architectural remains, as well as **pottery**, archaic clay tablets, and bullae used to seal containers. The southern part was founded on virgin soil in the late fourth millennium and shows characteristics of the late **Uruk period** culture, in which it may have served as an outpost of the Uruk state, controlling **trade** with **Anatolia**. It comprised a walled, carefully laid-out **city**, with grid-like streets, houses, storerooms, and public buildings. It appears to have been abandoned by 3200 B.C., but another settlement, farther north, can be dated to the third millennium.

HALAF, TELL. Archaeological site in the Habur valley in northern Syria. The excavations by Max von Oppenheim between 1899 and 1929 concentrated on two main occupational layers, a prehistoric (**Chalcolithic**) one, dating from the sixth to the fifth millennia, and a second, Iron Age layer, when the site was known as Guzan(a).

The **pottery** from Tell Halaf associated with the prehistoric levels was so prolific and distinctive, with its polychrome painted patterns showing animals and geometric shapes, that an entire archaeological period is named the Halaf period (c. 6000–5000/4500).

From the ninth to the seventh centuries B.C., Guzana was mainly under **Assyrian** domination, though governed by local **Aramaean** rulers. One of them built a **palace**, adorned with basalt stone reliefs showing mythological scenes and a portico supported by divine figures standing on lions, now displayed in the museum of Aleppo.

HAMMURABI OF BABYLON (REIGNED 1792–1750 B.C.). King of **Babylon**, the sixth ruler of the **Amorite** or **First Dynasty of Babylon**. Initially, Hammurabi controlled only a rather small territory around the **city** of Babylon, including **Kish**, **Sippar**, and **Borsippa**. He gradually extended his control, gaining possession of some important southern cities such as **Uruk** and **Isin** and forming alliances with other powerful rulers in the region. At the same time, he built a centralized **administration**, invested in irrigation projects to extant land for cultivation, and strengthened city walls. After 30 years, he was ready to deal a decisive blow to his greatest rival, **Rim-Sin** of **Larsa**, who had ruled over most of **Babylonia**. A year later he also gained control over **Eshnunna** and thereby the eastern **trade** routes

leading to Iran and beyond. In 1761 B.C., he conquered **Assyria**. **Mari**, hitherto an ally of Babylon, was taken in 1760. By 1755, Hammurabi was the undisputed ruler over all of Mesopotamia.

Numerous letters and administrative documents from his reign are known. It appears that he built on bureaucratic structures and practices set up by his predecessors, especially Rim-Sin of Larsa (*see* ADMINISTRATION). The redistribution of new crown land that resulted from conquest was strictly controlled under the so-called *ilku* system.

Hammurabi is widely known for his “law code,” inscribed on a large stone stele (*see* LAW). At the top it bears a scene of the sun god **Shamash** investing the king with the insignia of royal power. The lengthy prologue and epilogue describe the king as the protector and shepherd of his people, upholder of justice and peace. Although it is not proven that the laws were ever implemented, they were much admired in antiquity and often copied on clay tablets. Hammurabi’s letters and **royal inscriptions** also became standard works, and subsequent generations of **scribes** copied them assiduously.

Hammurabi remains one of the great kings of Mesopotamia, an outstanding diplomat and negotiator who was patient enough to wait for the right time and then ruthless enough to achieve his aims without stretching his resources too far. After his death, the power of the Babylonian state began to decline.

HANIGALBAT. *See* MITANNI.

HARRAN. City in the northern plains of Upper Mesopotamia, in present-day southeastern Turkey, near Urfa. It was an important **trade** center, at a crossing of routes, as implied by its name (KASKAL, *harranu*), which means simply “road.”

The city was first mentioned in the **cuneiform** tablets found among the merchant **archives** at **Kanesh** from the 19th century B.C. The **Assyrians**, who called it Huzirina, incorporated Harran into their empire in the eighth century. After the destruction of **Nineveh** in 612, it became the last Assyrian capital. Two years later the **Medes** conquered and sacked the city.

Harran was also famous as a religious site, the seat of the moon god **Sin**. His **temple**, the Ehulhul (“House of Rejoicing”), was rebuilt several times by various Assyrian monarchs and finally, with vast expense, by the **Babylonian** king **Nabonidus**. No archaeological evidence of the temple has been found so far.

HASSUNA. Archaeological site in northern Iraq, excavated between 1943 and 1944 by **Seton Lloyd** and Fuad Safar. The six layers of occupation all date to the prehistoric **Neolithic period** and are associated with the beginning of permanent settlements based on dry farming (*see*

AGRICULTURE), documented at the site by successive strata of houses and the first painted **pottery**. Similar artifacts were subsequently found in other sites of Mesopotamia, Syria, and **Anatolia**, which shows a common culture, known as the Hassuna period. Dated to c. 7000 to 6000 B.C., it preceded the **Halaf** culture.

HERODOTUS (FL. C. 484–420 B.C.). Greek traveler and historian. He was born at Halicarnassus in Asia Minor, was exiled to Samos, lived in Athens, and died in Sicily. He wrote nine books of *Histories* that chronicle the wars between the Greeks and the **Persians**.

He was interested to show the historical antecedents of the **Achaemenid empire** and thus included accounts about **Assyrians**, **Babylonians**, **Egyptians**, and Syrians. It is not clear how many of the places he actually visited in person, although some descriptions are lively and almost ethnographic reports. His sources for Mesopotamian history are relatively poor; he often confuses Assyrian and Babylonian places and personages and includes much fictional material that served to demonstrate the cultural superiority of the Greeks.

HISTORIOGRAPHY. When writing was first developed in Mesopotamia, it served as a means of recording unmemorable bureaucratic details and economic transactions (*see* ADMINISTRATION). By the **Early Dynastic period**, when it had become possible to write sentences, the elite could make use of texts as a means of legitimizing power. A written statement would proclaim that the **gods** approved of a certain **king** assuming rulership over a particular city, for instance, or would link a gift of such a ruler to a **temple**, wherein it was duly preserved.

In dynastic lineages it was useful to be able to refer to the written testimonies of royal ancestors. In the words of the ancient “historiographers,” the king desired “to make a name for himself” and to leave to “future kings” proof of a life that had achieved notoriety and fame. It was temples, rather than **palaces**, that served as depositories for objects inscribed with at least a king’s name (*see* ROYAL INSCRIPTIONS). The act of founding or repairing a public building was also an opportunity to leave a written memento to this fact buried beneath the walls (*see* FOUNDATION DEPOSITS).

At certain points of history it was deemed useful to produce lists of past rulers, if only to show some continuity from a previous dynasty (*see* ASSYRIAN, BABYLONIAN, SUMERIAN KING LISTS); such lists still form the basis of modern periodization, although there are problems. The scribes compiling these lists were mainly concerned to show the duration of dynasties, and the list format precludes any regard for synchronicities or co-regencies.

In **Sumer** and **Babylonia** it was customary to name years after an

important event that occurred in each of the regnal years of a king (see YEAR NAMES). They therefore furnished some historiographic material, although particular conventions restricted the range of references that were made; the Babylonian kings, for instance, preferred to record endowments to temples and the appointment of officials.

The **Assyrian** kings left inscriptions that detailed their military campaigns (*see* ANNALS); often couched as an annual report to the great **gods** of Assyria, they record the imperial expansion and countless battles fought by the king and his **armies**.

The occupation of Babylonia by the Assyrians also gave rise to rival historical accounts of particularly traumatic events, such as the destruction of **Babylon** by **Sennacherib** (*see* BABYLONIAN CHRONICLES).

It was the recording of astral phenomena, such as solar eclipses, within such broadly historiographic writing that allowed modern chronologies to anchor the ancient records within an absolute framework of time, albeit with considerable gaps and many uncertainties.

HITTITES. A people speaking an Indo-European **language** who formed a powerful state in central **Anatolia** in the second millennium B.C.

Having penetrated into Asia Minor by several routes since the late third millennium, they took the name of an indigenous people, the Hatti, whose main land lay around the bend of the river Halys (Kizilirmak). A Hittite **king** called Anitta is mentioned in the tablets found at **Kanesh** (19th century), although a Hittite source from the 16th century says that a certain Labarna was the first king of Hatti.

The expansion of the Hittite kingdom began during the reign of Labarna's successor, Hattushili I (around 1680). He moved the capital to the rocky hillsides of Hattusa and extended Hittite control from the shores of the Black Sea to the borders of western Mesopotamia. His grandson **Mursili I** (c. 1620–1590) conquered **Aleppo** and made a surprise raid down the **Euphrates**, where he sacked **Babylon** and returned with much booty.

The stability of the Hittite state was precarious due to frequent **palace** intrigues and assassinations until Telepinu issued an edict around 1525 to regularize the royal succession. Despite his efforts, the Hittites were not major players until the reign of **Suppiluliuma I** (reigned c. 1344–1322). He successfully incorporated the fertile and wealthy north Syrian region and subdued the Hurrian state of **Mitanni**. He conducted an alliance with the **Kassite** kings of **Babylon** and married a Babylonian princess. However, the Hittite expansion into Syria was much resented by the **Egyptians**, who had long controlled the Syrian coastal regions. This conflict eventually led to a military confrontation in the Orontes valley near Qadesh (c. 1265) that resulted in a bilateral treaty.

The Hittite empire was enlarged further by Tuthalijas IV, who conquered Cyprus. His successors were forced to make alliances at the expense of

territory in order to hold onto their power, which was increasingly threatened by their old enemy, the Kaska-people.

In the 12th century B.C., the Hittite empire collapsed in the turmoil of various invasions and unrest that engulfed Anatolia and all of Syria. Descendants of the Hittites continued to survive and eventually to prosper in southern Anatolia, where a number of small kingdoms retained a precarious independence in the first half of the first millennium, in the face of **Assyrian** pressure.

The main languages spoken in the Hittite kingdom were Hittite (called *neshili* by the Hittites after the city of Nesha) and Luwian, another Indo-European language. The Hittites wrote their language in **cuneiform**; later they developed a hieroglyphic system of **writing**.

HORSES. While donkeys and other short-legged equids were present in the ancient Near East since the Paleolithic period, horses were introduced from the Central Asian steppes not before the late third millennium B.C. Their foreign origin is reflected in the **Sumerian** term *ANSE.KUR.RA*, which means “donkey of the mountains.”

At the beginning, horses were primarily used to pull **chariots**; the reins were connected to a ring through the nose. With the influx of peoples from the east, who were more familiar with horses (e.g., the **Kassites**), technologies improved. Since the 16th century, true bits worn in the horse's mouth and made of **bronze** were introduced, and this much improved the handling of the animals. They became an important part of the armed forces as cavalry and to pull chariots. While earlier mounted warriors had to ride in pairs, allowing one of them to use his bow while the other controlled both horses, improved reins and bridles could be secured, leaving the hands free. Saddles and stirrups were unknown, but horses could wear breastplates and various ornaments.

In the beginning of the first millennium B.C., the **Assyrians** owed their rapid rise to power to their efficient cavalry units. The Assyrian uplands were suitable for horse breeding, and part of their conquests were motivated by the need to secure a reliable supply of horses and riders for their **army**.

The chariotry initially represented a prestige unit; costly chariots constituted a noble royal gift. Only in the first millennium did lightweight chariots become an integral part of the military organization (*see* WARFARE).

Cuneiform archives from the Kassite period, from Nuzi and Assyrian sites, contained manuals on horse breeding, horse terminology (replete with foreign words), and training methods. One text from Ugarit concerns veterinary matters.

HRUŠKA, BLAHOSLAV (1945–2008). Czech Assyriologist, he was a researcher at the Oriental Institute of the Czechoslovak Republic and the

Czech Academy of Sciences and the editor of the periodical *Archiv Orientalni*. His main area of research was Mesopotamian **agriculture**.

HURRIANS. A people originating from the south Caucasus region who settled along the northeastern borders of Mesopotamia and southern **Anatolia** in the last quarter of the third millennium B.C. Their **language** is not related to any of the other known groups of languages. It was agglutinative, which means that chains of suffixes and infixes were added to generally monosyllabic stem words to create meaning. It is not well known, since only relatively few texts were rendered in a **cuneiform** system of writing, either in **Hittite** or Mesopotamian contexts.

Hurrian personal names were already recorded in the texts from the **Akkad** period, and Hurrians were present in all parts of the Near East for most of the second and first millennia, especially in southeast Anatolia, northern Mesopotamia, and eastern Iran. They achieved the greatest political importance between 1500 and 1200, within the framework of a kingdom called **Mitanni** where an Indo-European elite exercised political control. After the demise of Mitanni, smaller Hurrian principalities survived for a while in Upper Mesopotamia.

Hurrian influence was particularly strong in religious matters. They are also thought to have brought various Mesopotamian ritual practices to the Hittite realm, where Hurrian magicians enjoyed high esteem. Most of the information concerning their social practices and legal norms comes from **archives** discovered at the site of the city of Nuzi.

IBBI-SIN (ALSO IBBI-SUEN; REIGNED C. 2026–C. 2004 B.C.). Fifth and last **king** of the **Third Dynasty of Ur**. His reign is well documented by **royal inscriptions** and **letters** sent and received by the court that illustrate the volatile political situation of this period. Several important Mesopotamian **cities** rebelled against the supremacy of **Ur**, and from the west **Amorite** tribes poured into the country. Despite these problems, Ibbi-Sin secured his hold on power for some 20 years, by force as well as by diplomatic means.

Ibbi-Sin's reign produced a measure of relative stability until the downfall proved inevitable. This was probably precipitated by a major flooding of the **Euphrates** and ecological problems in the south that led to severe food shortages in the capital. One Ur governor, a certain **Ishbi-Erra**, had gained control of **Nippur** and **Isin** and held Ibbi-Sin to ransom over shipments of grain. Finally, the eastern states of **Elam** and Shimashki attacked and devastated the city of Ur and many other towns of Mesopotamia. The king was taken captive and died on alien soil.

IMMORTALITY. This theme does not constitute a major preoccupation for Mesopotamian thinkers. The subject is only addressed in the **Gilgamesh** epic, where it states that the **gods** kept immortality to themselves, having allotted a limited life span to human beings. The only person to have been granted “eternal life” was the flood hero (known variously as Atra-hasis or Utnapishtim), the only one to escape the planned annihilation of humankind. His continuing existence was to serve the gods as a reminder of their promise never to destroy humanity again. The attempt by Gilgamesh to win immortality for himself is therefore doomed to fail. The only form of immortality open to mortals is by “making a name”; in the case of Gilgamesh, to have built the great walls of **Uruk** and to have committed his experience to **writing**. *See also* HISTORIOGRAPHY; RELIGION.

INANNA. The foremost **Sumerian goddess**, patron deity of **Uruk**. Her name was written with a sign (mùš) that represents a reed stalk tied into a loop at the top. This appears in the very earliest written texts from the mid-fourth millennium B.C. She is also mentioned in all the early god lists among the four main deities, along with **Anu**, **Enki**, and **Enlil** (*see* LEXICAL LISTS). In the **royal inscriptions** of the **Early Dynastic period**, Inanna is often invoked as the special protectress of **kings**. Also, **Sargon of Akkad** claimed her support in battle and politics. It appears that it was during the

third millennium that the goddess acquired martial aspects that may derive from a syncretism with the Semitic deity **Ishtar**. Inanna's main sanctuary was the Eanna ("House of Heaven") at Uruk, although she had **temples** or chapels in most **cities**.

During the time of the **Third Dynasty of Ur**, Inanna's ritual **marriage** to the king was much celebrated in poetry. In the context of the Ur royal ideology, Inanna does not appear as the "Lady of the Battle" as in **Akkadian** inscriptions but as the "Lady of Voluptuousness." The king is said to be "worthy of her holy loins." Her lover in many songs is the "Shepherd" **Dumuzi**, and the king of Ur identified himself with this role.

Inanna was the subject of a great number of literary compositions, hymns, songs, and prayers. Many of these depict Inanna as the embodiment of sexual drive and allure in all its ambiguities; she could "turn men into **women**," and in her entourage appear transsexuals and transvestites. She was the patron of prostitutes and was said to haunt the taverns in search of male partners. Without her, life cannot continue; one myth recounts that when she was kept captive in the underworld, all copulation (and hence reproduction) came to a sudden end.

Although it was Inanna's sister **Ereshkigal** who ruled over the underworld, Inanna, too, had destructive and dangerous qualities. She doomed her lover Dumuzi to be her substitute in the underworld and tricked the normally wise god Enki into relinquishing many of his divine powers. Inanna as the "Queen of Heaven" was associated with the planet Venus.

INHERITANCE. While it is not possible to make generalized statements about the extent of "private property" in Mesopotamia at any one period, one must bear in mind that the **economy** of the country depended on surplus production and astute managerial control over labor expenditure and investment on seed and equipment. Therefore, large institutions such as **temples** or the **palace** appear as controlling a considerable share of arable and/or otherwise productive land. The majority of the population worked as laborers or sharecroppers. They received rations or kept a percentage of the yield. Land could also be leased or rented. In some periods, the king distributed large parcels of land to trustworthy individuals that then became theirs "forever," as the **kudurru** documents specify.

However, it has also become clear that households, clans, and **families** could own or at least control access to **agricultural** land, as early as the **Early Dynastic period**. In such cases the land was collectively owned. From the **Old Babylonian period** onward, privately owned land was divided into equal shares after the death of the father. Brothers could pool their shares, buy one another out, or simply accept this practice. It could also lead to litigation, as court cases report. Some far-seeing patriarchs issued inheritance contracts to avoid such disputes. Daughters generally did not receive a share of paternal property since they were given a dowry upon

marriage. An exception to this rule were the *naditu* women of the Old Babylonian period, who did not marry and who were given a share of the paternal estate to manage during their lifetime, after which it was meant to revert to the family holding. Some of these women, however, adopted younger *naditu* to be their heirs, which was not infrequently challenged by their male siblings. The laws of **Hammurabi** attempted to regularize inheritance in case of children from secondary marriages.

Inheritance documents were almost always the preserve of the wealthy. Poorer families could not afford to pay **scribes** for their services, but court cases involving ordinary citizens give some idea of the chattel that could be passed on to the next generation.

Not just land could be inherited but real estate, draft animals, donkeys, wagons, and boats, as well as other craft or professional equipment. Items of personal use, such as jewelry, **cylinder seals**, clothes, mirrors, and other valuable objects were mentioned. Some lucrative positions at the temple, for instance, so-called prebends, could be passed on, again a preserve of the rich. **Slaves** were a prized commodity and also inherited, along with “cash” (**silver or gold**).

Women received furniture, especially beds and stools, as well as cooking implements made of expensive materials (**copper, bronze** cauldrons, grinding stones, pestles and mortars), although men sometimes got the largest **metal** objects among the household goods.

IRAQ MUSEUM (PREVIOUSLY THE BAGHDAD ARCHAEOLOGICAL MUSEUM). The major collection of Mesopotamian antiquities in the country of origin was founded by King Faisal I on the instigation of **Gertrude Bell** in 1926. New laws stipulated that excavated material should stay in Iraq and not be used to furnish museums and private collections abroad, as had been the custom. This policy ensured that the museum acquired material from all foreign-led excavations, as well as those conducted by native teams. The collections comprised not only prehistoric and Mesopotamian material but Hellenistic, Parthian, and Islamic artifacts. The latest spectacular finds housed there were the contents of royal tombs discovered in Nimrud (**Kalhu**).

The United States–led invasion of Iraq in 2003 led to a disastrous breach of security. Galleries were broken into and contents were stolen, although the most precious objects, including the Nimrud **gold**, had been stored elsewhere. It is still impossible to say how many artifacts were destroyed and looted since most of the museum’s records were also destroyed. The theft of the collection of **cylinder seals** from a locked storeroom in the museum’s basement is one of the most deplorable losses. The museum officially reopened in February 2009, although only a fraction of the collection can be viewed and access is limited. Notable remaining and stolen objects can be seen in the virtual museum, a project initiated in 2005

IRON. Iron ore deposits occur in Anatolia and northwest Iran. The **metal** was probably first worked as a by-product of **copper** smelting, and rare small iron objects have been found in Mesopotamian graves since the fourth millennium B.C. Iron was worked as wrought iron and tempered by cooling and reheating. It was the **Hittites** who mastered the technology and produced the first tools and **weapons**.

In Mesopotamia, iron implements and arms were not used in significant quantities before the **Assyrians** introduced them in the eighth century B.C. They procured their iron weapons and tools by exacting them as **tribute** from their Anatolian provinces. The Iron Age therefore arrived later in Mesopotamia than in the Levant and **Anatolia** and coincides with the **Neo-Assyrian** and **Neo-Babylonian periods**.

ISHBI-ERRA (REIGNED C. 2017–C. 1985 B.C.). King of **Isin**. Ishbi-Erra, an **Amorite**, served as an officer in the **army** of king **Ibbi-Sin** of the **Third Dynasty of Ur**. He was entrusted with the command over Isin and managed to assert independence from **Ur** by exploiting the unrest caused by the **Amorite** invasion into **Babylonia** and the renewed aggression of **Elam**. He helped to foster resistance against the supremacy of Ur within Mesopotamian **cities** and formed alliances with Ur's other enemies. Firmly entrenched at Isin and in control of neighboring **Nippur**, he profited from the destruction of the capital Ur by the Elamites and presented himself as a legitimate successor of the Ur kings. The **Sumerian King List** thus presents Ishbi-Erra as the founder of a new dynasty, the **First Dynasty of Isin**.

ISHCHALI. Archaeological site in eastern Mesopotamia, in the Diyala valley, excavated by the Oriental Institute of Chicago under **Thorkild Jacobsen** in 1934–1936. The uncovered remains of the **city** comprise parts of the city-gate and most notably a large **temple** complex with two courtyards dedicated to three **gods**, including **Inanna/Ishtar** and **Shamash**, dating from the **Isin-Larsa period** (beginning of the second millennium). Among the works of **art** found at Ishchali are unusual four-headed deities.

ISHKUR. **Sumerian** weather and storm **god**, the twin brother of **Enki**, son of **Anu** (or sometimes **Enlil**). His main cult center was Karkara, in southern Mesopotamia. He was also venerated as **Adad**.

ISHTAR. An originally Semitic **goddess** associated with the planet Venus, the Mesopotamian Ishtar owes much of her personality as described in myths and hymns to the **Sumerian** goddess **Inanna**, with whom she was identified as early as the mid-third millennium B.C. Like Inanna, she

embodies libido and sexual love without being a mother goddess. Only the topic of the **king** as lover and even husband of the goddess disappeared from the repertoire of **Babylonian royal inscriptions**. In the Epic of **Gilgamesh**, the hero goes so far as to express his revulsion at the idea of **marriage** to the goddess. Ishtar's masculine traits as a warrior goddess are perhaps more pronounced in the **Assyrian** royal inscriptions than in the Babylonian texts, where her exalted position in heaven is emphasized more. Her main symbol became the star and the rosette, and her sacred animal was the lion.

ISIN (MODERN ISHAN-AL-BAHRIYAT). City in southern **Babylonia**, 20 kilometers south of **Nippur**. It was excavated first in 1924 by A. T. Clay and Stephen Langdon, and then by Bartel Hrouda from 1973 to 1989. Archaeological excavations show that the site was already occupied in the **Ubaid period** in the fifth millennium B.C. Isin was well known for its **temple** dedicated to the healing **goddess** Ninisina ("Lady of Isin"), who was later identified with the **Babylonian** goddess **Gula**.

The city had some importance in the **Early Dynastic** and **Akkadian** periods, but the name Isin does not appear in texts before the time of the **Third Dynasty of Ur**. Most of the extant structures date from the second millennium. The city came to prominence after the fall of **Ur** in c. 2004, when **Ishbi-Erra** founded the **First Dynasty of Isin** in c. 2017. Isin's supremacy was continuously contested by other cities, especially its archrival **Larsa**, which eventually conquered the city in c. 1794.

The **Kassite** kings promoted the cult of Gula and invested in the restoration and enlargement of her temple. When Kassite rule was brought to an end by the Elamites, who then exercised control of most of central Babylonia, Isin's position in the south provided relative autonomy. The **Babylonian King List** credits an Isin with exercising legitimate kingship as the **Second Dynasty of Isin** (1155–1027). There are few sources from this period apart from those of the reign of its most prominent king, **Nebuchadrezzar I**, who undertook a successful campaign to **Elam** and restored national pride. *See also* KIDEN-HUTRAN.

JACOBSEN, THORKILD (1904–1993). Danish-born archaeologist and Assyriologist. Having gained his PhD at the Oriental Institute of Chicago, he joined the Institute's excavations in the Diyala valley in the 1930s as an epigraphist and archaeologist, working with **Henry Frankfort** and others. In 1937 he began his 23-year tenure at the Oriental Institute, becoming its director in 1946. He was instrumental in bringing several important German Assyriologists to the United States who were fleeing from Nazi persecutions, such as **Benno Landsberger**, A. Leo Oppenheim, and Hans Gustav Güterbock. He set up joint excavations at **Nippur** with the University of Pennsylvania.

From 1962 until his retirement in 1974, Jacobsen had a professorship at Harvard. His main research interests were in the fields of **Sumerian** and **Akkadian** lexicography and grammar, and the history and institutions of the third and early second millennia. He is best known for his translations and interpretations of **Sumerian** literature, **religion**, and mythology. His publications (*Towards the Image of Tammuz and Other Essays on Mesopotamian History and Culture* [ed. by W. L. Moran], 1970; *The Treasures of Darkness: A History of Mesopotamian Religion*, 1976; *Harps that Once . . . Sumerian Poetry in Translation*, 1987) reached a wide public beyond the academic confines of Assyriology. *See also* ISHCHALI.

JEMDET-NASR PERIOD (C. 3200–C. 3000). A prehistoric period named after the site Jemdet Nasr in southern Iraq, which is mainly manifested by distinct cultural artifacts (**pottery**, **cylinder seals**, **cuneiform** tablets) in southern Mesopotamian sites. The term is not generally used for northern Mesopotamian archaeological sequencing.

This phase in the south is distinct from the previous **Uruk period** levels and shows a degree of cooperation between several southern **cities** whose seals are preserved on the tablets.

KADASHMAN-ENLIL I (REIGNED C. 1380–1359 B.C.). **Kassite king of Babylonia.** He is best known from the diplomatic correspondence with the Egyptian pharaoh Amenophis III (*see* AMARNA CORRESPONDENCE). One of Kadashman-Enlil's daughters was given to the pharaoh as a wife and seems to have pleased him enough for him to demand another. The **Babylonian** king complains in his letters that “his brother” did not return the favor of sending him one of his princesses and that his gifts of **gold** were disappointingly meager.

KALHU (MODERN NIMRUD). **Assyrian city** some 30 kilometers south of present-day Mosul on the river **Tigris**. The site was the first to be extensively excavated by a British team, led by **Austen Layard**, from 1845 to 1851. Many further archaeological missions were conducted, mainly by the British, and since 1956 by the Iraqis. The last spectacular discovery was that of several Assyrian tombs, complete with quantities of **gold** jewelry. Although excavations have shown that the place had been inhabited in prehistoric times, it only became a site of some importance when Shalmaneser I (reigned 1274–1245 B.C.) began to build there. Kalhu became the capital of the Assyrian empire under **Ashurnasirpal II** (reigned 883–859 B.C.), a role it played for some 150 years until **Sargon II** moved the seat of government to **Dur-Sharruken** (Khorsabad).

In its heyday Kalhu had a population of up to 100,000 people. Ashurnasirpal feted the inauguration of the city with a huge banquet. He and his successors built vast **palaces** and **temples** and surrounded the city with a 7.5-kilometer wall. The British archaeological teams unearthed not only architectural vestiges but also **archives** containing royal correspondence and **administrative** documents from the time between **Tiglath-pileser III** and Sargon, as well as the famous “Nimrud ivories” that were used to decorate furniture and architectural elements in the palaces. The **Medes** and **Babylonians** destroyed the **city** between 612 and 614, although parts of the site, which measured originally some 360 hectares, continued to be inhabited by villagers into the Hellenistic time. *See also* MALLOWAN, SIR MAX; RASSAM, HORMUZD.

KANESH (KÜLTEPE). **Anatolian city** in Cappadocia, near Kayseri. Turkish excavators discovered the remains of a pre-**Hittite** city that had been inhabited since the mid-third millennium B.C. It seems to have been the center of a wealthy kingdom that benefited from a nearby crossing of

important **trade** routes. Around 2000 B.C., **kings** with Indo-European names appear in the **cuneiform** tablets discovered at an **Assyrian** trade colony that had been set up close to the city. Kanesh was called Nesha by the Hittites, who incorporated the city into their kingdom. It was continuously occupied throughout the second millennium and was an independent city during the Neo-Hittite period (10th–8th centuries). Thereafter, Kanesh was conquered and destroyed by the Assyrians.

Kanesh is of importance to historians of Mesopotamia because of the cuneiform **archives** found in the *karum*, as the trade colony was called. These archives detail the commercial activities of Old Assyrian merchants who in a time between c. 1920 and 1742 B.C. conducted a lucrative business of importing **tin** and Mesopotamian **textiles** in exchange for **silver** and **gold**. The karum was destroyed by fire several times and rebuilt, until the unstable situation after the death of the Assyrian king Ishme-Dagan made business impossible and the colony was abandoned.

KARAINDASH (REIGNED C. 1440–C. 1430 B.C.). Kassite king of **Babylonia**, he is mainly known because of his building activities at **Uruk**, where he built a large new **temple** for the goddess **Inanna**.

KARDUNIASH. The name for **Babylon** and **Babylonia** during the **Kassite** period. It appears as such in the **Amarna archives**.

KASSITE DYNASTY (C. 1595–1150 B.C.). According to the **Babylonian King List**, the Kassite Dynasty comes after the **First Dynasty of Babylon** and before the **Second Dynasty of Isin**. Thirty-two **kings** are listed, but the first three (Gandash, Agum I, and Kashtiliash) reigned before the end of the Babylonian Dynasty and were thus contemporary with the last **Babylonian** kings. Most but not all of the kings had **Kassite** names. There are few historical sources from the first 200 years.

According to the Babylonian King List, there were 36 Kassite kings who ruled some 500 years. The chronology of the period, especially before 1500, is very uncertain and neither the sequence nor the lengths of reigns are firmly attested. It has also been suggested that the Kassites practiced co-regency. It was a king named Ulamburiash who was credited with the unification of **Babylonia** after he defeated the king of the **Sealand**. The best-known Kassite rulers were **Kadashman-Enlil I** (reigned c. 1380–c. 1359) and **Kurigalzu II** (reigned c. 1332–c. 1308).

The Kassite kings were responsible for a reorganization of the country into a strongly centralized state. Although they were most scrupulous to endow the ancient cult places and rebuild **temples**, the old **cities** lost some of their importance during this period as the countryside became more densely inhabited and smaller political units, such as villages and towns, proliferated. The Kassite kings donated large tracts of land in perpetuity to

private individuals. Such donations were recorded on large, cone-shaped stones known as **kudurru**.

The Kassites made few attempts to enlarge their territory by invading other countries and generally presided over a peaceful and prosperous period; for a while, **gold** rather than **silver** became a medium of exchange.

Like other elites of the time, the Kassites were very interested in the breeding of **horses** and the new technology of **chariots** that was to transform military strategy. Generally, the Kassite elites did not impose their cultural traditions on their Babylonian subjects. They were keen to demonstrate their respect for the local customs and religious practices. They encouraged scribal activities, and it was under Kassite kings that Babylonian became the lingua franca for the whole of the ancient Near East.

KASSITES. A people of unknown origin who entered Mesopotamia from the east, across the Zagros mountains. They spoke a **language** that is not related to any other known language. It is only poorly known from a few phrases and personal names in **cuneiform** documents.

The Kassites were first mentioned by the **Babylonian king Samsuiluna** (reigned 1749–1712), and they appear with some frequency as a menace to the rural population in many **Old Babylonian royal inscriptions**. They penetrated into Mesopotamia and were concentrated in the region around **Sippar**. Many Kassites remained **tribally** organized even when they became sedentary. When the Hittite king **Mursili I** raided **Babylon** and thus terminated the **First Dynasty of Babylon**, a Kassite ruling elite achieved power over northern Mesopotamia, which was gradually extended to include the whole country with the victory over the **Sealand** by Ulam-Buriash in c. 1595 (*see* KASSITE DYNASTY). When the Kassite Dynasty came to an end in c. 1155, the Kassites continued to live as a distinct group in Mesopotamia. Some occupied important posts in subsequent kingdoms, while the tribal groups in the eastern hills were still feared as a warlike people at the time of **Alexander's** conquest.

KIDEN-HUTRAN (REIGNED C. 1235–1210? B.C.). Elamite king who launched two invasions into **Babylonia**, which at that time was ruled by local puppet kings appointed by the **Assyrian** monarch **Tukulti-Ninurta I**. In the first attack, Kiden-Hutran conquered **Nippur** and the city of Der. Several years later he took **Isin** and Marad.

KINGSHIP. According to Mesopotamian belief, “kingship came down from heaven” and was therefore a divinely decreed institution. The notion that kings were chosen for their office by the **gods** of the land is expressed in the **royal inscriptions** of all historical periods. There were special rituals of coronation that confirmed the ruler's responsibility toward the deities and

his subjects whose “shepherd” he was meant to be. Kingship was hereditary in the male line, thus forming dynasties, but persons could also accede to the throne by violent means or usurpation of the throne.

Some kings of the **Early Dynastic period** and those of the **Third Dynasty of Ur** also fulfilled important religious offices, as did the **Assyrian** kings, but they did not hold a supreme priestly office. The **Akkadian** kings (e.g., **Naram-Sin**) and those of **Ur** assumed the status of a deity; at least, their names were written with the determinative sign that was usually reserved for divine names. In the third millennium B.C., there was also a cult for the statues of living and deceased kings.

Babylonian kings during the second millennium B.C. saw themselves as arbiters of justice. The **Amorite** rulers in particular were keen to show an interest in the affairs of all their subjects, while the **Kassite** and **Neo-Babylonian** rulers were more remote. During the annual New Year **festival**, the Babylonian king had his ears pulled and his face slapped by a priest to remind him that he, too, was a subject of the gods. Assyrian monarchs saw the defense and enlargement of their country by military means as their primary duty.

Babylonian **divinatory** science was primarily dedicated to safeguard the country and its king. Especially the Assyrian kings surrounded themselves with learned advisers skilled in the arts of interpreting the “signs,” and the king had to undergo a lengthy ritual of purification to avert evil portents (*see* **ASTROLOGY/ASTRONOMY**). In some cases, a “substitute king” could be officially appointed for a limited period of time so that any misfortune might befall him rather than the real king (*see* **ISIN**).

KISH. City in central Mesopotamia, some 15 kilometers east of **Babylon** (several sites: Tell Oheimir, El-Khazneh, El-Bender, and Ingharra). One of the oldest cities, it was continually occupied from c. 5000 B.C. to the sixth century A.D. It was first excavated by a French team under Henri de Genouillac (1912), then by the British as the Field Museum–University of Oxford joint project, under Stephen Langdon and Ernest Mackay (1923–1933). No final report has been published, though various other scholars, such as McGuire Gibson and Roger Moorey, revisited the site in the 1970s.

According to the **Sumerian King List**, “**kingship** came down from heaven again at Kish” after the Great Flood to begin the First Dynasty of Kish. The text lists 23 kings at Kish with very long reigns (a total of 24,510 years). The penultimate ruler, Mebaragesi, is documented by an inscribed vase that bears this name and title.

The Second Dynasty of Kish, listed after that of Awan, had eight kings reigning for 360 years. None of these kings are known from written sources that have preserved the names of other kings of Kish who are not mentioned in the Sumerian King List; the most important of those is Mesalim, of whom several inscribed objects survive.

During this time, the **Early Dynastic period**, there were several independent city-states; Kish was one of them, although the title “king of Kish” began to imply sovereignty over all of **Sumer** and **Akkad**, and it was borne by **Sargon** and his successors during the **Akkadian period**. The Third Dynasty of Kish (c. 2450–2350) was said to have been founded by a woman, the “innkeeper” Kubaba. Again according to the Sumerian King List, she was defeated by the ruler of Akshak. Her son Puzur-Sin regained power and initiated the Fourth Dynasty of Kish, which was brought to an end by **Lugalzagesi**, who was captured by Sargon. Thereafter, the city was never the seat of kingship again, but it remained an important center of learning, as it had been since the Early Dynastic period.

The main archaeological discoveries were Early Dynastic houses and graves from the Early Dynastic period in Ingharra, as well as the terraces of large **ziggurats** from the same period. There were also the remains of a **palace** and an **administrative** building. At Tell Oheimir, the **temple** complex of the **god** Zadaba dates from the **Old Babylonian period**, and in “mound W” a **Neo-Assyrian** tablet collection from the seventh century was discovered.

KIZZUWATNA. A country in southeast **Anatolia** with a large **Hurrian** population, which became part of the **Hittite** empire in the mid-second millennium B.C.

KOLDEWEY, ROBERT (1855–1925). German archaeologist, architect, and art historian. Like **Walter Andrae** in **Assur**, he worked on behalf of the Berlin (later Pergamon) Museum and was given sole responsibility for the excavation of **Babylon**, conducted from 1899 to 1917. There he put his architectural training and earlier experiences of participating at excavations in Greece, Italy, Turkey, and Iraq to good use and pioneered the methods of tracing the often disintegrated remains of mudbrick walls, the main **building material** in lower Mesopotamia, and their superimposed layers of habitation. His discoveries include the Processional Way and the **Ishtar-Gate**. He published his results in two books (*Die Tempel von Babylon und Borsippa*, 1911; *Das wiedererstehende Babylon*, 1913).

KRAMER, SAMUEL NOAH (1897–1990). Ukrainian-born American Sumerologist. He was educated at the University of Pennsylvania and remained associated with this institution all his life, participating in excavations and serving as curator of the tablet collection and as professor of Assyriology. He worked primarily on **Sumerian** literary texts and also wrote widely read books on Sumerian history and religion (*Sumerian Mythology*, 1944; *History Begins at Sumer*, 1959; *The Sumerians: Their History, Culture and Character*, 1963; *The Sacred Marriage Rite*, 1969).

KUDURRU. In the **Kassite** period the word *kudurru* designated a monument of a dressed stone or clay boulder that recorded land donations by the king to individuals. They were kept in **temples**, but sealed copies of the wording were kept in **archives**. Some had elaborate decoration with divine symbols or the plan of the estate, and powerful **curses** were addressed to anyone who would obliterate the monument or act against the agreed stipulations.

KULLAB. **Sumerian** toponym. Originally an independent town in the vicinity of **Uruk**, it became part of the **city** in the **Uruk period**. While **Eanna** was the site of a **temple** dedicated to **Inanna**, Kullab was associated with the **god Anu**.

KÜLTEPE. *See* KANESH.

KURIGALZU I (REIGNED C. 1430–1380 B.C.). **Kassite king of Babylon.**

He is best known for his architectural projects, especially the foundation of the Kassite royal city **Dur-Kurigalzu**. In an effort to gain legitimacy and support from the Babylonian elites, he restored **Ur**, which had been badly damaged during the conquest of the **Sealand**, as well as monuments in other southern cities, notably in **Uruk** and **Eridu**.

KURIGALZU II (REIGNED 1332–1308 B.C.). **Kassite king of Babylon.**

According to a **Babylonian Chronicle**, Kurigalzu was put on the throne by the **Assyrian** king **Ashur-uballit I** to replace the usurper **Nazi-Bugash**. This did not stop him from attacking **Assyria** in later years, an enterprise that did not succeed and resulted in the loss of Babylonian territories. A campaign against **Elam**, however, resulted in victory.

KUTHA (MODERN TELL IBRAHIM). **Sumerian** toponym (Gudua). The site was first investigated by **Hormuzd Rassam** in 1879–1882 but has not been systematically excavated. The **city** is known mainly from various **cuneiform** sources that refer to the main sanctuary, which was dedicated to the underworld **gods Nergal** and **Ereshkigal**. Various kings, including **Shulgi** of the **Third Dynasty of Ur**, **Ashurbanipal**, and **Nebuchadnezzar II**, contributed to the restoration of their **temples**. A literary text, known as the Legend of Kutha, which survives in copies from **Nineveh** and **Sultantepe**, was said to have been inscribed on a stele that stood in this temple. It features the **Akkadian** king **Naram-Sin** as he battles against invading foes and is saved by the gods.

LAGASH. Important **Sumerian** city-state in the third millennium B.C. It had several urban centers: Lagash itself (modern Al-Hibba), **Girsu** (modern Tello), and Nin-Sirara (modern Zurghul). Girsu, excavated by the French archaeologist Ernest de Sarzec in the 1880s, was the first Sumerian **city** to be discovered. No important architectonic structures were detected at the time, but the team found a large number of **cuneiform** tablets, artifacts, and statuary that provided valuable information on the **Early Dynastic** and **Neo-Sumerian periods**.

Lagash does not feature as a seat of **kingship** in the **Sumerian King List**, but according to the inscriptions of its rulers (who always bore the title *ensi*), it enjoyed periods of political independence and prosperity. The inscription by an ensi called Enhegal dates from the Early Dynastic period III, around 2570 B.C. Best known is Ur-Nanshe (c. 2494–2465), who recorded his many building projects, such as the **temples** of Nanshe, **Ningirsu**, and the mother goddess Gatumdug, as well as the city walls of Lagash. He fought wars against **Ur** and especially **Umma**. His grandson **Eannatum** (reigned c. 2454–2425) won the famous victory over Umma. Ur-Nanshe's dynasty ended with **Uruinimgina** (previously read as Urukagina) (reigned c. 2351–2342), who was defeated by **Lugalzagesi**.

Little is known of what went on in Lagash during the **Akkad** period, but while the **Gutians** held sway in the north, the city-state enjoyed another period of prosperity and expansion, especially during the reign of **Gudea** (reigned c. 2141–2122). It became part of the unified state created by the **Third Dynasty of Ur** and began to decline in the **Old Babylonian period**.

LAMBERT, WILFRED G. (1926–). British Assyriologist and epigraphist, who taught at the University of Birmingham. He published many of the **cuneiform** tablets held in the British Museum and other collections. A major interest has been the study of **Akkadian** literature and religion (*Babylonian Wisdom Literature*, 1960; *Atrahasis: The Babylonian Story of the Flood* [with A. R. Millard], 1969; *Babylonian Oracle Questions*, 2007).

LANDSBERGER, BENNO (1890–1968). German Assyriologist. A graduate in Oriental Studies at Leipzig, he returned there in 1926 after serving in World War I. Dismissed from his post during the Nazi era, he went first to the Turkish University of Ankara, where he taught in the language, history, and geography faculty before accepting an appointment at the Oriental Institute at Chicago, where he remained until 1955. His most important

contributions were in the field of language and lexicography. He published many of the most important Mesopotamian **lexical lists** (*Materialien zum sumerischen Lexikon* [vols. 1–9]; *Materials for the Sumerian Lexicon* [with **Erica Reiner** and Miguel Civil, vols. 10–17]; *The Date Palm and Its Byproducts in Cuneiform Sources*) and a highly influential essay on the epistemological challenges to Assyriology (“Die Eigenbegrifflichkeit der Babylonischen Welt,” 1965).

LANGUAGES. Numerous languages were spoken in Mesopotamia throughout the ages, although not all of them are represented on written documents. It appears that the simultaneous presence of several linguistic groups contributed significantly to the success of urbanization and the richness of the intellectual culture.

- Nonclassifiable languages are **Sumerian**, which has an agglutinative structure and was spoken in southern Mesopotamia throughout the third millennium B.C.; **Elamite**, current in southwest Iran from the **Early Dynastic** until the **Persian** period; **Hurrian**, spoken in Upper Mesopotamia and southern **Anatolia**; and **Kassite**, the language of the political elite in the second millennium B.C., which was not rendered in **cuneiform** except for some technical terms and personal names.
- Semitic languages form another important group. Known as **Akkadian** in cuneiform sources, the language refers to the different historical stages of old Akkadian, **Babylonian**, and **Assyrian**. Akkadian contains numerous loan words from Sumerian. Immigration from the west brought in people speaking West Semitic languages, such as the **Amorites** and **Arameans**. Semitic languages were widely spoken in the ancient Near East; they also include Hebrew and Ugaritic. The written form of Aramaic, using an alphabetic system, became current side by side with Babylonian and Assyrian in the first millennium B.C.
- Indo-European languages had comparatively less currency in Mesopotamia. They were spoken by foreign elites, such as the **Mitanni** or the **Persians**. **Hittites**, **Medes**, and **Parthians** also spoke such Indo-European languages.

There has been some speculation about the pre-Sumerian and pre-Akkadian language substratum in southern Mesopotamia, which seems to have left traces in place names, but the evidence is too scant and vague to allow any conclusions as to what type of language it may have been.

LARSA (MODERN TELL SENKEREH). A city in southern Mesopotamia, some 20 kilometers southeast of **Uruk**. It was first excavated by **William K. Loftus** in 1854 and then by the French, under André Parrot in 1933 and 1967 and in the 1960s by Jean Margueron and by Jean-Louis Huot (1976–

1991). The site had a long history of occupation, from the **Ubaid period** in the fifth millennium B.C. to the **Parthian period** (to A.D. 224).

The earliest architectural remains belong to a **palace** built by Nur-Adad, who reigned c. 1865–1850 B.C. The city remained independent after the disintegration of the **Third Dynasty of Ur** and vied with **Isin** for supremacy. The king lists record the names of the kings of Larsa, from Naplanum (reigned 2025–2005) until **Rim-Sin** (reigned 1822–1763), who was defeated by **Hammurabi** of **Babylon**. It was **Gungunum** (reigned 1932–1906) who had put an end to the supremacy of Isin, campaigned against **Elam**, conquered **Ur**, and took on the ancient title “king of Sumer and Akkad.” This marks the apogee of Larsa’s power.

Gungunum’s successors, Abisare and Sumuel, also built canals to extend and improve **agricultural** exploitation. Long-distance **trade** flourished. The reign of the last king, the **Amorite** Rim-Sin, lasted for 60 years. He put in place an **administrative** network that was to benefit his rival Hammurabi.

Larsa was an important religious center, and its main **temple**, the Ebabbar (“Shining House”), belonged to the sun **god Shamash**. It stood in the middle of the city and was already in existence during the **Early Dynastic period** III. The temple was then substantially rebuilt by **Ur-Nammu** around 2100 B.C. and continued to function well into the **Neo-Babylonian period**. The temple also had a **ziggurat**, and the main priestess of the Sun (**Akkadian** *entu*) had her own residence, the Giparu, within the sacred precinct. Other temples were dedicated to **Ishtar** and **Gula**.

LAW. The Mesopotamian justice system relied primarily on customary law that was upheld by the assembly of elders or town official or courts. Judges could be chosen from the local community or be appointed by the **king**. Affected parties represented their own case and brought witnesses as appropriate. Proceedings, or least the verdicts, were written down, and numerous tablets have been preserved from most historical periods. In the absence of witnesses, the accused could be referred to an ordeal, such as being thrown into a river or canal. The person’s innocence was proved when the “river refused” the culprit. Defendants and plaintiffs were made to swear an **oath** on the divine emblems, such as the sun disk, which represented the **god** of justice, **Shamash**.

As kings were seen as the upholders of law and order, they often issued legal reforms, debt releases, and decrees that were recorded in writing and are often referred to as law codes, although there is no evidence that courts ever referred to such edicts. The earliest known royal edict is by the **Sumerian** ruler **Uruinimgina** of **Lagash** (c. 2351–2342), who abolished a number of malpractices such as officials overcharging for **funeral** services. Then follows the Code of **Ur-Nammu** (c. 2100), of **Lipit-Ishtar**, of **Eshnunna**, and of **Hammurabi**, all from the early **Old Babylonian**

period. They are all introduced by the clause “if ——— and ——— happens,” followed by the verdict.

The Code of Hammurabi is the longest extant collection of laws. It was published toward the end of his reign and represents the first known effort to produce a coherent set of abstract legal precepts for the whole country, incorporating diverse local practices and traditional law. There are several main sections (family law, including subsections on adultery, incest, divorce, and **inheritance**; property law and restitution; loan and hire agreements; and setting standards on charges and wages). It differentiates fines and punishments according to a person’s legal status: free, **slave**, and a category in between called *mushkenum* (see SOCIETY). In contrast to earlier legal practices, Hammurabi’s code favors the so-called talionic principle (“an eye for an eye”) rather than monetary fines, which may express a preference for tribal customary practice.

The **Middle Assyrian** laws from the 12th century B.C., regulate, among other matters, the behavior of **women** and **palace** staff. There is only a fragmentary code from the **Neo-Babylonian period**.

LAYARD, SIR AUSTEN HENRY (1817–1894). British explorer, diplomat, and archaeologist. Having studied art in Florence but about to enter the legal profession, he undertook a journey to the Middle East, where he drew rock reliefs. He met **Paul-Émile Botta** in 1840 and became interested in ancient mounds. He spent one year exploring the **tribe** of the Bakhtiyari (*Early Adventures in Persia, Susiana, and Babylonia*, 1887) and obtained permission to begin excavations of Nimrud (**Kalhu**) in 1845. He discovered the **palaces** of the **Assyrian kings**, with their carved stone wall reliefs, as well as numerous **cuneiform** tablets. From 1849 to 1851 he also worked at **Nineveh**, where he unearthed the palace of **Sennacherib** with its state **archive**, and also made soundings at various other mounds. His lavishly illustrated books (*Nineveh and Its Remains*, 1849; *Discoveries of the Ruins of Nineveh and Babylon*, 1853), as well as the exhibition in the British Museum of the antiquities he had shipped to Britain, made Layard world-famous and caused great general enthusiasm for all things **Babylonian** and Assyrian. He retired from the field in 1851 and engaged in a political and diplomatic career.

LETTERS. Evidence of personal written communications between individuals in Mesopotamia is either indirect, in the form of references made to letters in literary texts or scribal copies, or direct, in the form of primary documents. In order for a correspondence to be necessary and to function, the content must be of a nature that cannot be conveyed by oral means alone, and sender and recipient need to be literate or have somebody literate at their disposal. Quantities of **cuneiform** letters have been recovered at the **Anatolian** site Kültepe (see KANESH), concerning

complex business and private arrangements between the merchants based back in **Assyria** and those in the **trade** colony. The **archive** of **Mari** preserved many of the letters sent to the king, who was frequently away from the capital. They kept him informed of any developments that warranted his attention, from military to economic and even private matters.

The **Old Babylonian period** saw comparatively high levels of literacy, with **scribes** being available to ordinary citizens as well as royal personnel. In the 14th century, the rulers of the main states in the ancient Near East sent each other missives written in **Akkadian**, to show goodwill and a readiness to enter into ceremonial exchanges, as documented in the **Amarna correspondence**. In the **Neo-Assyrian period**, scholars, diviners, military personnel, and other officials wrote detailed reports to their sovereign, which were filed in the state archives. The format of the letters, beginning with the phrase “To PN say the following” betrays their origin in verbal messages learned by heart.

LEXICAL LISTS. Given the complex system of **cuneiform** writing, with its large repertoire of signs, **scribes** made efforts to compile lists of signs that grouped them according to graphic shapes, from the simplest to the most elaborate, adding columns to indicate the pronunciation by means of separate syllabic signs. In addition to these sign lists, which had to be memorized by learners of the script, there were also lexical lists, which grouped categories of words for things or animate beings according to a common ideogram (such as “wood,” “metal,” etc.). Given the bilingual or even polylingual nature of cuneiform culture, lists of words initially composed in **Sumerian** could be given another column in another language, such as **Akkadian** or **Hittite**. The lists constitute not only an invaluable tool for the understanding of these ancient **languages** but a veritable repertoire of the material and intellectual culture. *See also* WRITING.

LIPIT-ISHTAR (REIGNED C. 1934–C. 1923 B.C.). Fifth **king** of the **First Dynasty of Isin**. He is primarily known for his legal and fiscal reform contained in the Code of Lipit-Ishtar, which regulates the participation of the populace in public work projects and tries to deal with the then increasingly widespread practice of debt enslavement. Otherwise, his inscriptions mainly record building activities. He restored the Giparu, the residence and chapel of the **entu priestess** at **Ur**, a high office to which he had appointed his daughter.

LLOYD, SETON (1902–1996). British architect, archaeologist, and academic. Like **Walter Andrae** and **Robert Koldewey**, Lloyd applied his understanding of **architecture** to his archaeological work and pioneered a

technique of attaching cameras to kites for aerial views. He began by assisting **Henri Frankfort**, at Tell el-Amarna in **Egypt** (1928–1930) and in the Diyala valley (to 1937). From 1939 to 1949 he was technical adviser to the Iraq Directorate-General of Antiquities and worked with Iraqi teams at sites such as **Hassuna**, **Eridu**, Tell Harmal, and Tell Uqair. He next took a post at the British School of Archaeology at Ankara before joining the British Institute of Archaeology (1962–1969). His numerous books on the subject of Mesopotamian **art** and archaeology achieved a wide readership (*Foundations in the Dust: A Story of Mesopotamian Exploration*, 1955; *The Art of the Ancient Near East*, 1961; *Mounds of the Ancient Near East*, 1963; *The Archaeology of Mesopotamia: From the Old Stone Age to the Persian Conquest*, 1976).

LOFTUS, WILLIAM KENNETH (1897–1908). British geologist, explorer, and archaeologist. In the 1850s he served as a geologist for the Turco-Persian Boundary Commission, which provided the opportunity to visit mounds in southern Mesopotamia and Persia. He began excavations at Susa (with **Hormuzd Rassam**), **Larsa**, and **Uruk** (1853–1855), where he discovered clay-cone walls and some tablets. He also dug at some of the northern sites, such as **Nineveh** and Nimrud (**Kalhu**). His health suffered when he went to India for a geological survey and he died, aged 38, while at sea.

LUGALBANDA. Legendary **Sumerian king**. He is mentioned in the **Sumerian King List** as the third king of the First Dynasty of **Uruk**. There are no historical records to substantiate this claim, but Lugalbanda, like his father Enmerkar, appears as the heroic king in a number of literary works written in **Sumerian**.

On the other hand, he is also listed as a **god** in **lexical lists** and received a cult during the **Old Babylonian period** at **Nippur** and Uruk. In the **Gilgamesh** Epic he appears as the father of Gilgamesh and the husband of the goddess Ninsun.

LUGALZAGESI (REIGNED C. 2341–C. 2316 B.C.). He appears in the **Sumerian King List** as **king** of the Third Dynasty of **Uruk** with a reign of 25 years. According to his own inscriptions, he was initially the ruler (*ensi*) of **Umma**. In the long-lasting conflict between Umma and Lagash, he inflicted a serious defeat on the rival **city** and went on to win supremacy over the whole country as king of Uruk. He was in turn defeated by **Sargon of Akkad**, who brought him as captive to the **temple** of **Enlil** at **Nippur**. *See also* MARI.

MAGAN AND MELUHHA. Geographical terms for regions in the distant south and southeast of Mesopotamia. Both names first appear in **royal inscriptions** of the **Akkad period**; “ships from Magan and Meluhha” were said to have brought goods to the quays of **Akkad** and other cities. It has been proposed that Magan referred to the coast of Oman along the Persian Gulf, rich in **copper** and dates, and Meluhha in the Indus valley. In **Neo-Assyrian** texts of the first millennium B.C., Magan and Meluhha probably designated the African coast of the Red Sea (Upper **Egypt** and Sudan).

MAGIC. Religion and magic cannot be distinguished as separate concerns in the context of Mesopotamian attitudes to the “supernatural.” The great **gods** were all invoked to combat destructive and malevolent forces by lending efficacy to spells and apotropaic rituals. **Ea** and **Marduk**, for instance, were seen as “master magicians” whose divine powers were harnessed for combat against evil.

Human beings were under constant threat of falling victim to harmful influences; any accident, misfortune, illness, or death could be interpreted as a demonic attack, witchcraft, or even the “anger” of one’s personal god. Magic protection, in the form of amulets, unguents, or special invocations (prayers) acted as a prophylactic.

Once the harm was done, however, and sickness and ill luck would not go away, the afflicted person would seek professional help from a magician-healer. The **king** and the elites could afford to avail themselves of the services of experienced specialists (*asipu*) who had spent many years of apprenticeship and training, while the less wealthy had to be content with “unlicensed” amateurs. Before any treatment could begin, the cause of the affliction had to be determined. This was a lengthy process that involved **divination** to aid diagnosis—to identify which evil spirit or demon was to blame. Then followed an exorcism to expel the offending agent and thereby rid the patient of his torments. Since sinfulness and ritual pollution could also attract demonic attacks or cause divine anger, purification rituals could be added for good measure.

Kings were especially in grave danger from evil influences. They had to undergo time-consuming and uncomfortable ritual treatment to ward off danger or reverse an ill-fated course of events. The correspondence between some **Assyrian** kings (e.g., **Esarhaddon**) and their diviners and magician-priests show that there were rivalries between different royal advisers and often a lack of unanimity.

There is a great amount of **cuneiform** literature on the subject, including incantations and spells, as well as instructions for the accompanying ritual actions and which materials and substances had to be used, how, and at what stage of the proceedings. These are difficult to understand since they were written for persons with insider knowledge and must have relied on oral commentaries.

The earliest magic spells date from the **Akkadian** period and concern love magic. A **Sumerian** incantation series that was also translated into Akkadian (*uttukki lemnuti*) tried to address all evil spirits and find the right formula to banish them. The most famous Babylonian magic series are *Maqlu* and *Shurpu* (both mean “Burning”), which concern witchcraft. The texts refer to a seven-day ritual combat and cosmic trial of the “witch” in the widest sense, by a divine assembly. It involved the burning of specially prepared effigies.

MALLOWAN, SIR MAX (1904–1978). British archaeologist, administrator, and writer. He gained his first experience as assistant to **Sir Leonard Woolley** at **Ur** (1923–1931) and went on to conduct a deep sounding at **Nineveh** (1931–1932) to establish the stratigraphic sequence for prehistoric levels. He subsequently worked on a number of prehistoric sites, such as Tell Arpachiya, Chaggar Bazar, and Tell Brak. After World War II, he taught Western Asiatic Archaeology at the University of London and directed the British School of Archaeology in Iraq, working at Nimrud (**Kalhu**) from 1949 to 1957. His first wife was the novelist Agatha Christie, who accompanied him to the field on several occasions.

MANISHTUSU (REIGNED 2275–2261 B.C.). Akkadian king, son of **Sargon of Akkad**. Although, like his predecessor and brother **Rimush**, he had to suppress widespread rebellions against his rule, he also conducted long-distance **trade**, as with **Magan**, and engaged in building activities. Later, tradition credited him with the foundation of the **Ishtar temple** at **Nineveh**. According to some “historical” **omens**, Manishtusu was killed by his courtiers with their **cylinder seals**.

MAR-BITI-APLA-USUR (REIGNED 985–980 B.C.). The only **king** of the so-called **Elamite** Dynasty. He may have had Elamite ancestry although his name is **Babylonian**.

MARDUK. Babylonian god. The origins of this god are obscure, and even the etymology of his name is unclear, a matter that already occupied the minds of Babylonian scholars in antiquity. In later times, his symbol was the hoe, which may reflect some agrarian connections. More was made, though, of a possible solar aspect, as reflected in the popular form of writing his name as *AMAR.UTU*, which can be translated as “the bull calf

of the Sun.” Although Marduk’s name appeared in god lists of the **Early Dynastic period**, he only became a major Mesopotamian deity in the time of **Hammurabi** (reigned 1792–1750 B.C.). This can be seen in the literary texts of this period that allocate Marduk a prominent place at the expense of **Enlil**. Many people in the **Old Babylonian period** and thereafter bore names composed with Marduk.

Together with **Ea** and the sun god **Shamash**, Marduk had great powers against all kinds of evil forces and is frequently invoked in incantations and **magic** rituals. In the **Kassite** period, the cult of Marduk was also much promoted, and by the time of the **Second Dynasty of Isin**, he had become the “lord of the gods” and the “national” deity of **Babylonia**.

Marduk and, to a greater extent, his son **Nabu** (the god of **Borsippa**) were also introduced to **Assyria**, where chapels and **temples** were built for them in all the major **cities**.

The vicissitudes of Marduk’s statue, which was stolen first by the **Elamites** in 1185 and then again by the Assyrians in the seventh century, echo the political fate of Babylonia. The restoration of the divine statue and its secure presence in the temple Esagila at **Babylon** was regarded as a manifestation of security and stability. This intimate connection between Marduk, the city of Babylon, and the whole of Babylonia was also the major theme of the New Year **festival**. The grandiose restoration works at his temple at the time of **Nebuchadnezzar II** further emphasized the vital links between Babylonia’s economic prosperity and its status as the greatest power in the Near East, and the unrivaled position of Marduk as the head of the Babylonian pantheon.

Various myths and other literary works describe the rise of Marduk as the most courageous of the younger gods, who defeated the forces of chaos and designed and built the universe (*see* CREATION MYTHS). One text, known as the Erra epic, elaborates on the disastrous consequences of Marduk’s absence from his shrine.

MARDUK-APLA-IDDINA II. *See* MERODACH-BALADAN.

MARDUK-NADIN-AHHE (REIGNED 1100–1083 B.C.). **Babylonian king**, the sixth of the **Second Dynasty of Isin**. He was the brother of the famous **Nebuchadnezzar I** and acceded to the throne after the brief reign of his young nephew, Enlil-nadin-shume, whom he may have deposed. Marduk-nadin-ahhe pursued his brother’s policy of extending Babylonian influence. While the latter had made successful campaigns against **Elam**, Marduk-nadin-ahhe targeted **Assyria**, which was then ruled by the energetic warrior-king **Tiglath-pileser I**. For the first 10 years of the campaign, the Babylonians had the upper hand, followed by a period in which attack was followed by counterattack, but eventually Tiglath-pileser launched a massive invasion of Babylonia, capturing **Dur-Kurigalzu**,

Sippar, **Opis**, and **Babylon**, where he destroyed the royal **palace**. The final years of Marduknadin-ahhe were made even more troubled by the incursions of **Aramean tribes** and a severe famine in his 18th regnal year. The circumstances of his death are not known; according to Assyrian sources, he “disappeared.”

MARI (MODERN TELL-HARIRI, IN SOUTHEAST SYRIA). Important **city** on the middle **Euphrates**, excavated by French archaeologists since 1933. It is of special importance for the reconstruction of historical events at the beginning of the second millennium B.C., which the rich finds of **cuneiform** tablets at the site have made possible. The occupational levels of the city go back to the early third millennium.

According to the **Sumerian King List**, it was the seat of the 10th dynasty “after the flood,” between those of Adab and **Kish**, and was said to have lasted 136 years. The names of the kings are not preserved, but there is some archaeological evidence from **Early Dynastic** Mari, mainly **temples**, the remnant of a **palace**, and several inscribed statues of dignitaries.

Mari was destroyed by the ambitious **Lugalzagesi** and subsequently incorporated into the **Akkadian** empire. Then followed a period of independence under the rule of another dynasty, the so-called Shakkanakku (originally the title of Akkadian military governors).

Mari was subject to **Ur** during the **Third Dynasty of Ur**, but then began its most illustrious period, when the city enjoyed its greatest prestige, from c. 2000 to 1800 B.C. Much of its wealth derived from its improved irrigation schemes around the river; good relations with the surrounding **pastoralist** tribes, which provided wool for flourishing, palace-based textile workshops; and control over riverine and overland **trade**.

Mari became a coveted target of political ambition, and **Shamshi-Addu I** (reigned c. 1813–c. 1781), the **Amorite** king of **Assyria**, managed to dislodge the local ruler Sumu-yaman and appoint his own son Iasmah-Addu as governor of Mari.

Eventually **Zimri-Lim** (reigned c. 1775–1761), the son of the dislodged Mari king Iahdun-Lim, who had found exile in **Aleppo**, defeated the Assyrians and assumed kingship. Zimri-Lim maintained complex relations with tribal leaders and other rulers such as **Hammurabi** of **Babylon**.

He ordered the complete rebuilding of the palace on a vast scale, covering some 2,500 hectares. Such a huge edifice was not just a royal residence but comprised the center of **administration** and textile workshops. The walls of some official rooms were decorated with painted murals, the courts were paved with baked brick, and the whole edifice was drained by a complex system of underground water pipes. The walls of this palace are unusually well preserved, up to a height of four meters, because of the sudden and violent destruction it suffered at the hands of

Hammurabi's soldiers (c. 1760 B.C). The city continued to be inhabited, but on a reduced scale, into the first millennium B.C. *See also* PARROT, ANDRÉ.

MARRIAGE. The social structure of Mesopotamian society was patriarchal, but **women** were not considered the legal property of males. They could own property and engage in business in their own right. Marriage in Mesopotamia was the socially sanctioned cohabitation between a man and women for the purposes of procreation. Great value was placed on female fertility, and barrenness constituted grounds for divorce or for the husband inviting another woman to the household to bear him offspring. According to the **law** code of **Hammurabi**, a childless wife should take it upon herself to supply such a secondary wife.

The groom's **family** would begin negotiations with that of the prospective bride. The girl was given a share of her father's wealth as a dowry (Old Babylonian *sheriktum*). According to his status, this could range from a few items of clothing and simple jewelry, as well as household items such as kettles and mortars, to substantial amounts of **silver**, furniture, and, in some cases, **slaves**. Land was not usually part of a dowry except in cases where there were no male heirs. Dowry lists, generally of more prosperous women, have survived, especially from the **Old Babylonian period**. The husband could not lay claim to this dowry; it was passed onto the women's children (*see* INHERITANCE).

The groom presented the father of the bride with the bride-price. Since virginity was rated highly, it warranted a greater amount than if the bride had been married before. The groom's family also contributed to the marriage in the form of a gift (*terhatum*), mainly victuals, for the wedding feast. The husband could also make a personal present (*nudunnum*) to his wife, which became her legal property. The marriage was made legal by a contractual agreement between the parties. In wealthy families, this was drawn up in writing, but oral agreements before witnesses were equally valid.

The wedding feast, held at the groom's father's house, concluded the marriage. Although the general pattern of marriage was monogamous, men could take secondary wives in case of barrenness or residence in another country (as the **Assyrian** merchants did in **Anatolia**). They could also take concubines whose status was below that of the main wife. Numerous clauses in law codes deal with the inheritance implications of such polygamous situations.

Divorce was possible on the grounds of maltreatment by husbands (at least according to the Code of Hammurabi), infertility of the wife, or simply loss of affection by the husband. It had to be ratified before a court, which ensured that the repudiated woman had some means of survival and which could force the husband to return her dowry.

Diplomatic marriages, arranged by **kings** to cement political alliances, are well attested in Mesopotamia, especially during the second millennium. It was a popular method used by **Zimri-Lim** of **Mari**, whose daughters were married off to various local rulers as virtual spies. Letters of these unhappy women have been found among the Mari **archives**. The **Kassite** rulers also gave their princesses to foreign potentates, notably the pharaohs of **Egypt**. *See also* SOCIETY.

MATHEMATICS. Many of the practices and concepts of mathematics were first developed in Mesopotamia, where professional numeracy predated literacy. In the **Chalcolithic period**, counters and tokens facilitated the **administration** before the use of archaic **cuneiform** writing in the **Uruk period**. Various numerical systems and measurements corresponded to different commodities (e.g., grains, liquids, fields), using decimal as well as sexagesimal metrologies. This was simplified in the third millennium when sexagesimal metrology began to be adopted generally.

Archaic tablets show that **scribes** had to calculate quantities of raw materials or ingredients that were produced, exchanged, and consumed. Mathematics was an integral part of scribal training, and practice tablets from as early as the **Early Dynastic period** demonstrate that geometry was essential for the task of dividing up plots of land for farming and irrigation purposes. This was done by measuring the sides of areas rather than angles, and fields with an irregular outline, for instance, were divided up into simple rectilinear parts, which were then added up. Trigonometry never developed in Mesopotamia, although the so-called Pythagorean theorem had been practically applied since the **Old Babylonian period**. At this stage various tools essential for operating sexagesimal arithmetic had been invented, such as tables for reciprocals, place value systems, and standardized constants for calculations and conversions. Many school tablets, especially from **Nippur**, give evidence for the standards of Babylonian mathematics, both in algebra and geometry, as do the professional accounts in the economic sector, private as well as institutional, using sophisticated forms of tabulation. Apart from serving the purpose of the **economy** and its administration, mathematics was essential for the high achievements of Mesopotamian astronomy. *See also* ASTROLOGY/ASTRONOMY.

MEDES. The Medes were a people of Indo-European origin who migrated into Iran toward the end of the second millennium B.C. By the eighth century, they had consolidated themselves into a kingdom, known as Media, with the capital Ecbatana (modern Hamadan). They became instrumental in the downfall of the **Neo-Assyrian** empire in the late seventh century when they joined **Babylon** in an anti-Assyrian alliance that resulted in the sack of **Nineveh** in 612 B.C. They were to take most of the former

Assyrian provinces and dependencies in eastern **Anatolia** and northwest Iran. The Medes were in turn overrun by other **Persian** groups led by the **Achaemenid** king **Cyrus II** around 550 B.C. Although they lost their independence, the Median elite continued to exercise much influence at the new court.

MERODACH-BALADAN (BIBLICAL FORM OF THE NAME MARDUK-APLA-IDDINA II; REIGNED 721–710 B.C.). King of **Babylon**. The career of Merodach-baladan, originally a **tribal** leader of the **Chaldeans** in southern **Babylonia**, is unusually well documented, due to his long struggle against **Assyrian** supremacy. In the Assyrian records, he is depicted as an archenemy and “terrorist” *avant la lettre*; he was especially loathed by **Sennacherib**.

According to **Babylonian** sources, he was a “good” Babylonian king who maintained the privileges of the cult **cities**, invested in irrigation, restored **temples**, and fought Assyrian oppression. According to the Bible (2 Kings 18 and Isaiah 39), he sent a delegation to the Judean king Hezekiah, perhaps in the hope of gaining support against Sennacherib.

Merodach-baladan is first mentioned as the “king of the **Sealand**” in the **annals** of **Tiglath-pileser III**, who fought a campaign against the rebellious southern tribes. Profiting from the internal problems in Assyria following the death of Shalmaneser V in 722, he established himself as king of Babylon. **Sargon II** was determined to win back Assyrian control over Babylonia and launched a series of attacks meant to dislodge the Chaldean king from Babylon. He inflicted defeats on the Babylonian forces and declared himself king of Babylon, while Merodach-baladan went to **Elam** to ask for military assistance against the Assyrians.

By the time Sargon died in 705, Merodach-baladan had assembled a formidable alliance and challenged the new king Sennacherib on two fronts. The Assyrians managed to defeat the Babylonian allies, and Sennacherib entered Babylon, where he captured the wives of Merodach-baladan. He had these **women** transported to Assyria, together with other Babylonian nobles and much treasure.

Sennacherib sought to safeguard Assyrian interests by placing a puppet ruler on the Babylonian throne, whom he replaced in 700 with his own son and crown prince, Ashur-nadin-shumi.

Sennacherib launched a final attack against the south, where Merodach-baladan had taken refuge in the marshes. However, he was not to succeed; Merodach-baladan had escaped to the Elamite coast, and in the counterattack mounted by Elam, Sennacherib’s son was kidnapped and probably killed. Merodach-baladan’s end is not known, but he evaded capture by the Assyrians.

MESHARUM. Akkadian term meaning “justice” (**Sumerian**: níg.si.sá). It

was a prerogative of **kings**, especially on the occasion of the accession to the throne, to promulgate various reforms, such as those of **Uruinimgina** in the **Early Dynastic period**, who drastically reduced the levies paid for certain services and tried to instigate changes in social customs. In the second millennium, especially during the **Old Babylonian period**, economic decline due to various factors, not least practices such as tax-farming, brought about general impoverishment and crushing debt burdens (*see* SLAVERY).

The *mesharum*-act, solemnly read out in public ceremony, released debtors from obligations incurred during the previous reign; it amounted to a debt amnesty, especially for the sector controlled by the **palace** but also in the private sector (*see* AMMI-SADUQA) and was a measure intended to reinvigorate the **economy**, as well as to enhance royal prestige and influence.

METALS. *See* BRONZE; COPPER; GOLD; IRON; SILVER; TIN.

MIDDLE ASSYRIAN PERIOD. The term “Middle Assyrian” has two connotations: It is a linguistic term used to refer to the **language** of documents written in “Middle Assyrian” as opposed to Old or Neo-Assyrian. In a historical context, it circumscribes the period between c. 1400 and c. 1050 B.C. that saw the rise of a new **Assyrian** state after a long period of decline following the breakup of the **Old Assyrian** kingdom in c. 1741. This new era of Assyrian growth happened at a time of great international competition for political and economic supremacy in the Near East and the struggle for the control of the fertile valleys of Syro-Palestine. **Egypt**, **Mitanni**, and the **Hittites** were involved in this rivalry. Assyria only became one of the major players when Mitanni was in the throes of a disastrous civil war.

Ashur-uballit I (reigned 1365–1330) emerged as an able and determined **king** who soon sent rather cocky letters to the pharaoh, with princely gifts of **horses** and **chariots**, to initiate a royal gift exchange. He was also keen to establish good relations with the **Kassite** kings of **Babylonia**, and a friendship treaty was sealed by the **marriage** of the Assyrian princess to the son of the Babylonian king **Burnaburiash I**. The Assyrians duly intervened when a usurper dislodged the son from their union.

Relations between Assyria and Babylonia continued to be tense, and it was in the Assyrians’ interest to push the northern frontier of Babylonia farther south (it had been not far from the **city** of **Assur** at the time of Ashur-uballit). Due to the more expansionist dynamics of Assyria, they succeeded to enlarge their territory progressively.

Adad-nirari I (reigned 1307–1275) pushed westward, conquering the Hittite vassal state Mitanni, and took its ruler prisoner to Assur. Fortified towns and permanent administrative control strengthened the Assyrian

presence in the Habur and Balikh valleys.

During the reign of **Tukulti-Ninurta I** (c. 1244–1208), the Assyrians consolidated their control of the northern and eastern borders by setting up garrisons and pacifying nomadic tribes. When the Babylonian king Kashtiliash IV tried to recapture some towns held by the Assyrians, Tukulti-Ninurta moved his forces southward, inflicted a defeat on the Babylonians, and assumed Assyrian control over the country, which was to last for some 32 years. Tukulti-Ninurta was assassinated by one of his own sons, resulting in political turmoil and the loss of territory, including Babylonia.

The situation improved with the accession of **Tiglath-pileser I** (reigned c. 1115–1076). He was able to capitalize on the collapse of the Hittite empire and established a strong Assyrian presence in Anatolia. He led systematic but not altogether successful campaigns against various tribal groups, especially the **Arameans** in Syria, who proved a serious threat, and invaded Babylonia, which was at that time ruled by **Nebuchadrezzar I**.

In the 11th century, persistent guerilla warfare by the Aramean and Sutean **tribes** weakened Assyrian military power; there were rebellions in most of the previously conquered territories, and Assyria was reduced to its “heartland” around Assur, **Nineveh**, and Arbela. After about 1050 B.C., all documentation ceased, and the end of the Middle Assyrian state remains unrecorded.

MIDDLE BABYLONIAN. This is primarily a linguistic term to differentiate the **language** from the earlier **Old Babylonian** and the later **Neo-Babylonian**. It comprises texts written between c. 1600 and 900 B.C.

MITANNI. A kingdom in northern Syria, centered around the Habur valley. It was called Hanigalbat by the **Assyrians** and Naharina by the **Babylonians**. The population of Mitanni was predominantly **Hurrian**, but the ruling elites were Indo-European warriors who called themselves Mariannu and who worshipped deities with Vedic names such as Indar, Uruwana, and the collective Devas. This elite was to intermarry with the local population, as the names of their children testify.

Not much is known about the historical circumstance of the early Mitanni **kings** of the 16th century B.C., such as Kirta, Shuttarna, and Barratarna. Shaushtatar (fl. c. 1430) was a major figure. He greatly extended the territory of Mitanni by his conquest of Alalakh, Nuzi, **Assur**, and **Kizzuwatna** (Cilicia).

The Mitanni kings were in direct competition with **Egypt**’s pharaohs of the XVIII Dynasty over the fertile lands in western Syria. Tuthmosis III defeated the Mitanni forces at Aleppo and Karkemish, but his successors preferred to make treaties with the Mitanni kings; Tushratta’s daughter Taduhepa was given in **marriage** to Amenophis III, establishing a balance

of Mitanni and Egyptian influence.

Trouble came from within, when a civil **war** broke out over the succession of Shuttarna, who had been assassinated. A usurper acceded to the throne but was soon dislodged by Shuttarna's younger son, Tushratta (II). The **Hittite** king **Suppiluliuma I** backed another descendant of the murdered king, Artatama II, and later his son, Shuttarna III, while the sons of Tushratta found support from Egypt. Suppiluliuma's forces invaded the north of Mitanni and plundered the capital, Washshukanni. Tushratta was murdered by his own son.

The **Assyrians**, who had by this time become a new political player under their king, **Ashur-uballit I** (reigned 1365–1330), also concluded a treaty of mutual support with Shuttarna III. These rival factions, backed by military support from their allies, plunged the country into internal warfare and political chaos.

In the end, it was the Assyrians who gained from this situation; **Adad-nirari I** (reigned 1307–1275) marched against Washshukanni, took King Shattuara I prisoner to Assyria, and quelled a subsequent revolt by destroying various towns and deporting parts of the population. Mitanni was reduced to vassal status, and during the reign of **Tukulti-Ninurta I** (c. 1244–1208), it became an integral part of Assyria as the province of Hanigalbat.

MITHRIDATES I (REIGNED 171–C. 139 B.C.). Parthian king. He expanded the **Persian** control over Media (*see* MEDES) and conquered Mesopotamia in 141 despite fierce opposition by the **Seleucid** ruler Demetrios II.

MURSILI I (REIGNED C. 1620–1590 B.C.). Hittite king who greatly enlarged the power base of the Hittite kingdom by his campaigns in northern Syria, where he captured the city of **Aleppo**. He also fought against the **Hurrians**. His most famous exploit was the surprise attack on the city of **Babylon**, which brought the **First Dynasty of Babylon** to an end.

MUSIC. While the sound and tunes of ancient music are irrevocably lost and few actual instruments survive, depictions of musicians on **cylinder seals** and in **art**, as well as textual references, including **lexical lists**, prove that the making of music played an important part in Mesopotamian culture. Among the fabulous grave goods discovered in the “Royal Graves” at **Ur** were beautifully worked stringed instruments, such as harps and lyres, made of wood, **silver**, and **gold**, usually with eight strings, vertical or horizontal.

Visual representations show a variety of percussion instruments, from rattles and cymbals to various hand-held or mounted drums of different

shapes and sizes. Woodwind instruments, especially flutes, were popular, and were fashioned from wood, bone, **pottery**, and **silver**. Ritual texts also make reference to large kettle drums, and how to consecrate them. Songs and poems in praise of Mesopotamian **temples** refer to them “bellowing” and to the stirring sounds of drums, trumpets, and horns.

Music making at the **palace**, accompanied by dancing, was part of courtly life, alluded to in the royal hymns of the **Third Dynasty of Ur**, for instance. In the lives of ordinary citizens, singing, dancing, and the playing of simple instruments enlivened **marriage** feasts and other celebrations, as told in the **Gilgamesh** Epic and other literary texts, and were part of the entertainment provided in taverns and ale houses. The rousing beat of drums and the blast of trumpets accompanied troops going into battle, as depicted on the reliefs in **Assyrian palaces**.

NABONIDUS (NABU-NA'ID IN BABYLONIAN; REIGNED 555–539 B.C.). Babylonian king. He was not of royal blood and claimed descent from a scholar and courtier, Nabu-balatsu-iqbi. His mother, **Adda'-guppi**, had spent many years at the Babylonian court. Her devotion to the moon god **Sin** was shared by Nabonidus.

Nabonidus had been a prominent citizen and an experienced soldier, and he was no longer young when he became king. It is not quite clear under what circumstances he acceded to the throne in the aftermath of assassination of the designated crown prince.

In his first regnal years, he had to assert Babylonian authority in southern **Anatolia** and Syria, and his campaigns there resulted in rich booty that he used to repair **temples** throughout the land. He then moved to Arabia, where he set up Babylonian strongholds in an effort to impose control over the nomadic population and the lucrative incense **trade**. From his headquarters from the oasis **city** Teima, he was able to direct the project of rebuilding the temple of Sin at **Harran**. During his absence from **Babylon**, which was to last some 10 years, his son, Belshazzar, was entrusted with the running of the state.

Nabonidus returned to Babylon in c. 543 B.C. and duly celebrated the New Year **festival**, which had not been performed while he was at Teima. He managed to inaugurate the completed temple at Harran and other building projects, but in 539, his reign came to an end when the **Persian** king **Cyrus II** invaded **Babylonia**. Nabonidus, who had marched to meet his adversary, was beaten in battle near Opis and surrendered. The Persians entered Babylon freely, and Cyrus declared himself king. Nabonidus was moved to Carmania in southern Iran, where he died. He was the last indigenous king of Babylon.

NABOPOLASSAR (NABU-APLA-USUR IN BABYLONIAN; REIGNED 626–605 B.C.). Babylonian king and the first ruler of the so-called Third Dynasty of the **Sealand**. He was an official appointed by **Assyria** when he began his career, but during the troubled period after the death of **Ashurbanipal**, he declared himself king of the Sealand and rallied **Babylonian** troops around him to fight off Assyrian control. Having defeated the Mannaeans, allies of Assyria, he made an alliance with the **Median** king Cyaxares, whose daughter married Nabopolassar's son **Nebuchadrezzar (II)**. When the Assyrian king Sin-sharra-ishkun attacked Nabopolassar, the alliance moved against **Nineveh** and took the city after a

three-month siege in 612 B.C. The allies then pushed on to **Harran**, the then Assyrian capital, and drove out the last Assyrian government in c. 610. Nabopolassar became king of **Babylon**.



A drawing taken from a cylinder seal that shows the Babylonian god Marduk and his dragon-snake (drawing by Takayoshi Oshima).



The river Euphrates flowing past irrigated fields near the site of Dura-Europos on the Iraqi-Syrian border (photograph by Alexander Kessler).



Remains of a vaulted tomb from the Early Dynastic levels at Mari (photograph by Alexander Kessler).



The partially restored ziggurat of the moon god Nanna(r) at Ur. The excavated brickwork of the temple precinct in front of the image shows layers of bitumen between the sun-dried bricks that was applied to prevent rising damp (photography by Kurt Jaritz).



The Processional Way in Babylon had a substructure of unglazed bricks, shown here. The figures represent the bull, emblem of the weather god Adad, and the snake-dragon, symbol of the Babylonian national god Marduk (photograph by Kurt Jaritz).



An entrance to an Assyrian royal palace at Nineveh is guarded by the colossal stone bull with a human face. The picture also shows how the stone slabs, known as orthostats, were used to face the lower parts of the mudbrick walls. They were frequently decorated with reliefs or, as here, bands of inscribed

cuneiform text (photograph by Kurt Jaritz).



Popular print showing Austen Henry Layard at work on the excavation of an Assyrian palace. A basket in the foreground is filled with cuneiform tablets.

Nabopolassar himself campaigned in east **Anatolia**, and just before his death in 605 B.C., Nebuchadrezzar defeated an **Egyptian army** that contested Babylonian control over Syria, thus securing large parts of the former Assyrian empire for Babylonia.

NABU. Babylonian god whose main shrine, the Ezida **temple**, was at **Borsippa**, near **Babylon**. He was introduced to the Babylonian pantheon around the beginning of the second millennium B.C., at the same time that **Marduk** became prominent. He was first called the “**scribe** and minister of Marduk”; later he was known as the son of Marduk. Nabu became the patron of scribes and the scribal arts, and his symbol was the stylus. Beautifully written **cuneiform** tablets were popular offerings to this learned god.

Nabu’s cult was introduced to **Assyria** in the 13th century, when **Tukulti-Ninurta I** built him a **temple** at **Assur**. He endured when other gods, who had been more closely identified with political power (e.g., Marduk), had lost popularity. In the late Babylonian period, he assumed many traits of other deities, such as wisdom and associations with water and fertility. Nabu’s cult lasted well into the Roman period.

NADITU. Babylonian term for a group or institution of **women** during the **Old Babylonian period** who lived in special quarters known as *gagum* (the locked house). The best-known *naditu* women were those serving at the

temple of the sun **god Shamash** at **Sippar** due to the voluminous **archives** that have been discovered at the local **gagum**. The etymology of the word *naditu* is not very clear; translations such as “barren” or “fallow” have been proposed. It appears that these women lived in relative seclusion (the **laws** of **Hammurabi** are especially severe against them visiting taverns) and that they were not permitted to have children. Married *naditu* could provide their husband with a secondary wife to father progeny. They were given a dowry upon their entrance to the institution that they were free to administer at their discretion.

The surviving business documents show that *naditu* women came from affluent families, including royal daughters, and that they were actively engaged in business ventures, such as **trade** enterprises, or indeed the ownership of profitable taverns. It was expected that their dowry returned to their paternal families after their death, but some women preferred to **adopt** younger *naditu* in order to secure support in their old age. As a result of their childlessness and isolation, the life expectancy of *naditu* was considerably higher than that of ordinary women of the period.

Little is known about the cultic duties of the *naditu*. They were expected to contribute to the daily sacrifices, appear at certain cult services, and, according to some surviving letters, their main function was to pray for the well-being of the relatives. The main focus of their devotion was not Shamash but his spouse Aya.

The institution did not survive after the Old Babylonian period but was revived briefly by the **Neo-Babylonian king Nabonidus**.

NANNA(R). Sumerian moon god whose main **temple** was the Ekishnugal at **Ur**. His cult was particularly prominent at the time of the **Third Dynasty of Ur**, when his temple and the **ziggurat** were rebuilt. He was especially associated with the fertility of cattle, whose horns look like the new moon at the latitude of Mesopotamia.

NARAM-SIN (REIGNED C. 2260–2224 B.C.). Akkadian king, grandson of **Sargon of Akkad**. Like his predecessor **Manishtusu**, he had to repress rebellions by the main **cities** within his realm to assert his centralized control over the country. He then called himself “king of the four quarters (of the universe)” and began to write his name with a sign generally only used for **gods**.

Naram-Sin campaigned widely in all parts of his empire, from the east (where he famously subdued the mountainous tribes as depicted on a stele now at the Louvre), to the north, to the northwest, where he fought the **Amorites**. He even ventured as far south as **Magan** on the Persian Gulf.

In the later literary tradition (*see* KUTHA; OMENS), Naram-Sin was depicted as an unlucky ruler, whose arrogance angered the gods. It appears, however, that his long reign brought stability rather than disruption to the

country. He was succeeded by his son **Shar-kalisharri**.

NEBUCHADREZZAR I (NABU-KUDURRU-USUR IN BABYLONIAN; REIGNED 1126–1105 B.C.). **Babylonian king** of the **Second Dynasty of Isin**. He secured his place in the Babylonian historical tradition by a decisive victory over **Elam**, which had been a major threat to **Babylonia** for some generations. He not only defeated the Elamite king Hutteludush-Inshushinak but also recovered the statues of the **god Marduk** and of Marduk's wife Sarpanitum, which had been taken to Susa. The triumphal return of these statues may have given rise to the composition of the **creation myth** *enuma elish*. Nebuchadnezzar utilized booty from the Elamite campaign to rebuild sanctuaries in several Babylonian **cities**.

NEBUCHADREZZAR II (NABU-KUDURRU-USUR IN BABYLONIAN; REIGNED 605–562 B.C.). **Babylonian king**, son of **Nabopolassar**. Before his father's death, he had managed to defeat the **Egyptians** at Charchemish. He went to **Babylon** to be crowned but quickly returned to Syria. He fought there for some eight years to enforce Babylonian dominion over the Levant and Syria, including Damascus, Tyre, and Jerusalem. He also campaigned in the east, against **Elam**, and had to repress rebellions within **Babylonia**. Eventually, he managed to secure Babylonia's succession over most of the territories once held by **Assyria** and began to reap the economic benefits.

Much of the enormous revenue was spent on beautifying and protecting the capital, Babylon. He built new **city** walls, double in construction and with a moat, a new bridge over the **Euphrates**, new **palaces**, and the splendidly decorated Processional Street, which was used for the ceremonies of the New Year **festival** (see *AKITU*). He also rebuilt and enlarged the precinct and **temple** of **Marduk** and began work on the huge **ziggurat** Etemenanki.

Nebuchadnezzar's **royal inscriptions** contained primarily detailed descriptions of his **architectural** projects. According to biblical records, he went mad in his later years, but there are no Babylonian sources to deny or substantiate this claim.

NEO-ASSYRIAN. The **language** of the documents written in the **Neo-Assyrian period**, which has certain linguistic features that distinguish it from **Old** or **Middle Assyrian**.

NEO-ASSYRIAN PERIOD (934–610 B.C.). This historical phase derives its name from a linguistic category of the **Assyrian language** as expressed in the documents of the time. According to the **Assyrian King List**, there was no break between the rulers of the mid-second millennium and those of the first millennium.

The first phase (c. 934–745) was marked by the resurgence of Assyrian assertiveness after the political turmoil associated with the **Aramean** invasions in the 12th and 11th centuries. **Kings** such as **Adad-nirari II**, **Tukulti-Ninurta II**, and **Ashurnasirpal II** were primarily concerned to regain control over the old Assyrian-held territories in northeast Syria and Upper Mesopotamia; local rulers were forced to submit to Assyrian authority and treated as subjects of the king. They also began to expand gradually northward into southern **Anatolia** to secure a hold over the **metal** resources that were traded in this region. Equally important were the foothills of the Zagros in the east—prime **horse**-breeding country and straddling the **trade** routes from and to the Iranian plateau.

Ashurnasirpal II (reigned 883–859 B.C.) and **Shalmaneser III** (reigned 858–824) were to consolidate the Assyrian presence in all those regions. They initiated systematic exploitation for their resources: manpower, horses, raw materials, and provisions for the Assyrian **army**, as well as regular **tribute**. Treaties assured exclusive rights over **trade** commodities. Much of the revenue was used to construct and embellish new residential and **administrative** centers. Ashurnasirpal founded a new capital, **Kalhu** (ancient Nimrud), and Shalmaneser III concentrated on fortified provincial control points in northern Syria.

Relations with **Babylonia** were generally good; the two countries were allied by treaties and fought a common cause in subduing troublesome **nomads** on the western fringes of their realms. Babylonia lent support against various internal revolts that shook Assyria in the late ninth century.

This pattern only changed when **Shamshi-Adad V** (reigned 823–811) challenged the succession of Baba-aha-iddina. He invaded and ravaged the country, plunging it into chaos for the next 10 years. The situation in Assyria remained difficult. There were rebellions in the provinces, and kings had to rely on the compliance of their (native) governors.

In the time between 745 and 705 B.C., the Assyrian empire took shape. This was the result not only of renewed military expansion but also of new administrative structures that ensured much tighter political and fiscal control. When **Tiglath-pileser III** (reigned 744–727) acceded to the throne, Assyria's prestige in Syria had weakened, and there was a new powerful state in eastern Anatolia, that of **Urartu**, which contested Assyrian influence in Anatolia and the Zagros foothills. In Babylonia, **Chaldean** chieftains were asserting their independence and allied themselves with **Elam** against the Assyrians. Tiglath-pileser III campaigned in all these areas. He defeated Urartu, took direct control of Babylon, and one by one coerced the Syrian polities to submit.

The empire now consisted of the heartland of Assyria, the provinces in Upper Mesopotamia, and northern and southern Syria, with a further ring of client states ranging from southern Anatolia to the borders of Egypt, with tight control over the eastern trade routes. Tiglath-pileser III was succeeded

by Shalmaneser V (reigned 726–722), chiefly known for his conquest of the Israelite capital Samaria. He was ousted by **Sargon II** (reigned 721–705), whose accession was widely contested in Assyria. This triggered a concerted effort among the imperial dependencies to launch a collective revolt, led by the ruler of Hamath, which Sargon managed to defeat. He also had to counter the renewed threat of Urartu and to contend with the challenge of **Merodach-baladan** in Babylonia. By means of incessant campaigns, Sargon succeeded in holding Tiglath-pileser's empire together; he defeated the Urartians and their Mannaeen allies and drove Merodach-baladan into exile. He even had time to build another vast palatial complex, **Dur-Sharruken**, north of **Nineveh**. He was killed on campaign against the Cimmerians in Anatolia.

The reigns of his successors—**Sennacherib**, **Esarhaddon**, and **Ashurbanipal**—were also dictated by the need to quell numerous insurrections, police the frontiers of the empire, and confront coalitions by the enemies of the Assyrian imperial state. Although their military machine was the most formidable in the whole of the Near East, it could not be employed simultaneously in many different places.

Sennacherib (reigned 704–681) concentrated his efforts on solving the Babylonian problem in a long, drawn-out war that ended in the destruction of Babylon. Esarhaddon (reigned 680–669) had to counter Egyptian interference in the Levant and even mounted a successful campaign into the Egyptian heartland that culminated in the sack of Memphis.

Esarhaddon's policy of trying to secure the succession of his younger son **Ashurbanipal** to the Assyrian throne proved calamitous when the latter became embroiled in a war against his older brother **Shamash-shumu-ukin**, whom Esarhaddon had appointed as king of Babylon. Ashurbanipal was to prevail in this conflict, and he was also successful in annihilating the power of Elam, whose provocative and opportunistic policies toward Assyria had long been a thorn in his side. However, serious problems beset his later reign; it is not clear when and under what circumstances he died, and the empire received its mortal blow by a combined onslaught of **Median** and Babylonian forces between 612 and 610 B.C. when the cities of Nineveh, **Assur**, and the last capital, **Harran**, were conquered. *See also* NEO-ASSYRIAN.

NEO-BABYLONIAN. A linguistic term that characterizes the **language** of texts written in the first half of the first millennium, from c. 900 to 500 B.C.

NEO-BABYLONIAN EMPIRE (605–539 B.C.). It was founded by the **Babylonian king Nabopolassar** (reigned 626–605 B.C.), who with the help of the **Medes** brought the **Neo-Assyrian empire** to its knees by destroying **Nineveh** and other major **Assyrian cities**.

Nabopolassar's son **Nebuchadrezzar II** (reigned 605–562), an able

military commander, managed to ward off Egyptian claims on the western former Assyrian provinces in Syria and the Levant, and he maintained control over the central south **Anatolian** regions as well. The Iranian regions remained under **Persian** rule.

The Babylonian empire was thus the heir to the Assyrian empire and reaped the economic rewards, which were primarily invested in reconstructing the ancient Babylonian cities, especially **Babylon**. The empire weathered serious internal political problems after Nebuchadrezzar's death; his son **Amel-Marduk** was assassinated by his brother-in-law Neriglissar, who only ruled three years, leaving a minor on the throne, which triggered further bloody intrigues.

Nabonidus (reigned 555–539 B.C.) emerged victorious from the fray and, perhaps in anticipation of Persian ambitions under the new **Achaemenid** dynasty, moved westward to Arabia, where he built up a strong Babylonian presence before returning to Babylon. In any event, his efforts were fruitless. He faced **Cyrus II** in battle and was defeated. The Persian king then took possession of Babylon and assumed the Babylonian throne, marking the end of Babylonian independence. *See also* NEO-BABYLONIAN.

NEO-SUMERIAN. The **language** used primarily in the documents from the **Third Dynasty of Ur**, which differs in some respects from that used in older material.

NEO-SUMERIAN PERIOD. This is another way of referring to the time just before and during the **Third Dynasty of Ur**, when **Sumerian** became once more the **language** of written documentation in private as well as administrative contexts. *See also* NEO-SUMERIAN.

NEOLITHIC PERIOD (C. 9000–5000 B.C.). Literally this term means “new stone age.” The most prevalent tools were still made of stone, such as flint and other hard rocks. However, in many other respects the Neolithic period in the Near East has justly been associated with technological “revolution,” especially the intensive exploitation of the ecological niches, increasing sedentarization, the invention of **pottery**, and, most important, the beginning of **agriculture**. The most important pilot sites in Mesopotamia are Jarmo, Umm Dabaghiyah, Tell **Hassuna**, and Choga Mami, all in northern Mesopotamia (*see* HALAF, TELL).

All these sites were within reach of montane valleys where wild cereals and species of wheat and **barley** grew naturally. Early settlers had access to these zones and brought back seeds that were planted in the river plains, producing new cultivated species, such as six-row cultigens, with shatter-resistant seed heads. Even artificial irrigation was already employed at this stage. The investment of labor in such projects tied people more securely to

one place and made them rely more heavily on a relatively limited diet. Skeletons show that teeth were worn down more than in the preceding period and that the heavy work, especially the carrying of loads on the back, deformed neck and vertebrae. Nevertheless, the new **food**-procuring system allowed for greater population expansion and permanent settlements.

The domestication of wild animals was another Neolithic achievement. The dog already accompanied Paleolithic hunters; now sheep and goats, bred from their wild ancestors, appeared. The first domesticated cattle emerged in the sixth millennium B.C. Most of these animals still showed a high degree of variability, most likely a result of the mobility of herding groups who would come into frequent contact with other groups. Hunting, too, became more professionalized, especially that of gazelles and onagers, which needed coordinated group efforts. Gathering activities also continued, making use of periodically available wild resources, such as mushrooms, nuts, and wild fruit.

Neolithic craftsmanship is marked by the invention of **pottery**, hand shaped rather than wheel turned, but with exquisite painted designs and increasingly well fired. There is evidence of specialization in **craft** production (e.g., Umm Dabagiyah was a center of stone tool production).

Generally speaking, the Neolithic people had a “broad-spectrum economy,” making use of a variety of subsistence strategies (agriculture, food collecting, herding, hunting) without any visible bias to a particular kind of exploitation. It is also increasingly evident that there was still a high degree of mobility; people could move from one site to another in a form of transhumance, inhabiting one ecological sphere for part of the year and moving on to the next site (winter and summer camps). Such movements also explain the rapid exchange of ideas and technologies over a wide area, as well as the exchange of goods. This led to the adaptation to different geographical conditions and to more intense contact between different groups and lifestyles.

Neolithic **society** can be characterized as basically egalitarian and kinship based, possibly patrilocal and patrilinear.

NERGAL. Babylonian god of the underworld whose main cult center was at the as yet unidentified **city** of **Kutha**. He first appeared in the **Akkadian** period, and by the second millennium B.C., he had supplanted the previously female chthonian deities, such as **Ereshkigal**. He was a god of death and epidemics as well as of fertility and vegetation. *See also* IMMORTALITY; RELIGION.

NINEVEH (ANCIENT NINUA). **City** in **Assyria**, on the left bank of the river **Tigris**, now situated on the outskirts of the modern city of Mosul. The ancient site comprises the ruin fields of Kuyunjik and Nebi Yunus. It was

first discovered in the mid-19th century A.D. and excavated by French, British, and recently Iraqi archaeological teams (*see* BOTTA, PAUL-ÉMILE; LAYARD, HENRY AUSTEN; LOFTUS, WILLIAM KENNETH; MALLOWAN, MAX; RASSAM, HORMUZD).

Nineveh is one of the oldest cities in Mesopotamia, but the prehistoric levels are only known from deep soundings that have revealed successive layers of **pottery** since the seventh millennium B.C. The first excavated **architectural** structure, a **temple** dedicated to the **goddess Ishtar**, dates from the **Early Dynastic** period. It was rebuilt in c. 2260 by the **Akkadian** king **Manishtusu**. The **Amorite** ruler **Shamshi-Addu I** also left records of his building activities at the temple some 450 years later. The temple of Ishtar was thus the main attraction of the city, despite the fact that some **Middle Assyrian** kings built **palaces** there.

Nineveh only became a capital when **Sennacherib** (reigned 704–681 B.C.) decided to abandon **Dur-Sharruken** and moved his residence and **administration** to Nineveh. He surrounded the city, planned generously on 750 hectares, with double walls 12 kilometers long, pierced by 15 gates. He was particularly concerned to secure an adequate water supply to the gardens and parks of the city and built for this purpose a series of ingenious canals and aqueducts. His successors **Esarhaddon** and **Ashurbanipal** remained at Nineveh and built additional palaces lavishly decorated with wall reliefs. The royal **archives**, which were recovered from Ashurbanipal's palaces at Kuyunjik, have yielded some 24,000 tablets.

Nineveh, with its heterogeneous population of people from throughout the Assyrian empire, was one of the most beautiful cities in the Near East, with its gardens, temples, and splendid palaces. The **Medes** and **Babylonians** besieged Nineveh in 612, and the city fell three months later after a desperate struggle. Thereafter, only small areas remained occupied until Roman times.

NINGAL. Sumerian goddess, wife of the moon god **Nanna(r)/Sin** and mother of the sun god **Utu/Shamash**. Together with her husband, she was worshipped at **Ur** and in the Upper Mesopotamian **city** of **Harran**. She was also a goddess of dream interpretation.

NINHURSANGA. This is one of the various names for the Sumerian mother goddess. She is described as the “mother of the gods” and had a **temple** at Adab, as well as Kesh. The name means “Lady of the Mountains” and a Sumerian literary text, featuring **Ninurta**, provides an etymological narrative: Ninurta, having defeated a terrible demon and his stone warriors, turns them into a mountain and gives his mother, called Ninmah, this new name.

NINURTA. Sumerian god, well known since the **Early Dynastic period**,

son of **Enlil** and the mother-goddess **Ninhursanga**. He was originally an **agricultural** and rain deity and was called “the farmer of Enlil” who “lets the **barley** grow.” His main **temple** was the Eshumesha at **Nippur**. By the end of the third millennium B.C., he had become more of a warrior, “the right arm of Enlil,” and some myths describe him doing battle against the “hordes of the mountains.” **Marduk** replaced Ninurta as the “champion of the gods” in the **Old Babylonian period**. However, he continued to enjoy great popularity in **Assyria**, where he was both a storm god and a warrior.

NIPPUR (MODERN NIFFAR, SOME 150 KILOMETERS SOUTHEAST OF BAGHDAD). It was first excavated by **Henry Austen Layard** in 1851, then by the University of Pennsylvania (1888–1900), and subsequently, from 1948 on, by the Oriental Institute, Chicago (since 1952 jointly with Pennsylvania).

The **city** has a long history of occupation reaching back to the seventh millennium B.C. It was never the seat of a dynasty, although in the third millennium, Nippur seemed to have had an important role in confirming a dynasty’s legitimacy. Its most important structures were **temples**, especially the Ekur (the temple of **Enlil**) and the **Inanna** temple. There were many other smaller temples and chapels in the city. Many Mesopotamian kings throughout history honored the **gods** of Nippur by endowing and repairing its sanctuaries and depositing votive gifts. It also had a reputation as a center of learning, and most of the extant copies of **Sumerian** literary works from the **Old Babylonian period** were discovered in the Nippur libraries, which belonged to private individuals rather than institutions.

The city suffered a major environmental crisis in the 18th century B.C., precipitated by the shift westward of the **Euphrates**, which originally ran right through the town. Nippur revived in the **Kassite** period, after a break of almost 300 years. A **palace** from this time has been found. In 1224, Nippur was attacked and destroyed by the **Elamites**, and most of the population left, leaving only the priests to maintain the cult of Enlil.

After centuries of near abandonment, the city prospered once more in the first millennium B.C. **Ashurbanipal** rebuilt the temple, and the city regained its ancient privileges and its importance in the **Neo-Babylonian period** and thereafter under the rule of **Achaemenids**, when it was a center of commercial activity and especially banking, as documented by the archives of the Murashu family. *See also* KIDEN-HUTRAN.

NISSEN, HANS JÖRG (1935–). German archaeologist and Assyriologist, based at the Freie Universität Berlin. Since 1976 he has been the leader of the Archaic Tablets of Uruk project, which aims to publish some 5,000 tablets from the early stages of **writing** that have been found at **Uruk**, a task that began with the work of **Adam Falkenstein** (*Zeichenliste der archaischen Texte aus Uruk*, 1987 [with M. W. Green]; *Die Lexikalischen*

Listen der Archaischen Texte aus Uruk, 1993 [with R. K. Englund]; *Archaic administrative texts from Uruk: The early campaigns*, 1994 [with R. K. Englund]; *Archaische Verwaltungstexte aus Uruk: Die Heidelberger Sammlung*, 2001; and *Archaische Verwaltungstexte aus Uruk: Vorderasiatisches Museum II*, 2005). A catalog of all the texts is in preparation.

NOMADS. Much of the land in and around Mesopotamia was unsuitable for **agriculture** due to the scarcity of waterways and insufficient rain but provided enough seasonal grass for transhumant herding. The most important animals for pastoralism were sheep and goats, whose growth period coincides with the renewal of vegetation in the winter months. The social structures of seminomadic or fully nomadic pastoralism developed to ensure maximum mobility for herds and people while maintaining internal cohesion. Little is known about these configurations in antiquity due to the fact that the settled population held nomads in contempt. It appears, however, from documents such as the **Mari archives**, that they were tribally organized, patrilinear, and patriarchal.

The relations between the **city** dwellers in Mesopotamia and nomadic groups were generally described as problematic in the **cuneiform** documents, especially at times when waves of nomadic **tribes** pushed into the rural districts, which were normally controlled by the state. Such forced occupations were met by military resistance or even the building of defensive walls, but neither proved effective. Nomadic immigrations into Mesopotamia came mainly from the west, the Arabian peninsula and southern Syria, and to a lesser degree from the Iranian plateau and the Caucasus mountains. The best-recorded periods of tribal incursions were those of the **Amorites** in the late third millennium and those of the **Arameans** in the 12th and 11th centuries B.C.

Such large-scale and violent incursions were not symptomatic of the relations between nomads and the settled in Mesopotamia. Mutually beneficial contacts were the norm; the nomads were allowed to graze their herds on the stubble after the harvests, thus loosening and fertilizing the soil; after planting, the animals could nibble off the first shoots and thus render the plants hardier, encouraging growth. The markets of the cities supplied the necessary articles such as **weapons**, tools, and jewelry for **women**. There was an ongoing process of gradual sedentarization for some tribal members, who would maintain social contact with their kin groups and relay new modes of thinking and living. Mesopotamian civilization was thus continuously enriched by the absorption of tribal people.

Camel nomadism developed only in the first millennium, after the domestication of the camel.

OATHS. A solemnly sworn oath was the most binding of all agreements or testimonies. It was thought to be irrevocable, and the oath breaker would automatically be destroyed by the divine power of the oath. As such, oaths were only undertaken in serious cases. In Mesopotamian **law** courts, defendants had to swear an oath or undergo an ordeal when there was no reliable witness or any other proof of their innocence. In property disputes, litigants could choose between paying a fine or taking the oath; most preferred the latter.

Oaths were sworn on emblems of **gods**, who were thus witnesses and protectors of the agreement. International treaties and vassal treaties were also concluded by oaths; here the parties swore on the deities of their own countries. They often include self-imprecations detailing what dreadful events should befall those who will act contrary to any of the clauses of the treaty. *See also* RELIGION.

OLD ASSYRIAN. The **Assyrian language** of documents written in the first few centuries of the second millennium B.C., especially those discovered in Cappadocia (*see* KANESH). The inscriptions of **Shamshi-Addu I**, in contrast, were written in **Old Babylonian**.

OLD ASSYRIAN PERIOD (2000–1500 B.C.). According to the **Assyrian King List**, the first 17 Assyrian **kings** “lived in tents,” which means that they were little more than **tribal** leaders or sheikhs who dominated the region around the **cities** of **Nineveh** and **Assur**. One of these, Kikkiya, was said to have built a wall around Assur (around 2000 B.C.).

Little historical information exists from the early period, and most documents concern mercantile enterprises outside **Assyria**. Assur became the base for a network of commercial activities that centered on the import of **tin** from the east (via intermediaries) and an intense import-export business with central Anatolia (**trading** Mesopotamian **textiles** against **silver** and **copper**).

There was a break in the succession of Assyrian kings after the reign of Erishum II when the **Amorite** leader **Shamshi-Addu (I)** (reigned c. 1813–c. 1781), who originated from the west of Assur, acceded to the throne, having deposed Erishum. During his long reign of 32 years, he greatly enlarged his territory by attacking **Babylonian** cities, such as **Sippar** and **Babylon**, seizing control of **Mari** and the Habur valley with Shubat-Enlil. He controlled all the Assyrian cities, including Ekallate, Nineveh, and

Assur, and the **Tigris** valley right up to the Zagros and farther south toward **Elam**. After his death, most of the conquered territories were lost, and Assyria remained a small north Mesopotamian kingdom until it became reduced to a vassal state of the powerful **Mitanni** following a raid by king Shaushtatar around 1500 B.C. *See also* OLD ASSYRIAN.

OLD BABYLONIAN. Linguistic term to classify the **language** of **Akkadian** documents written during the **Old Babylonian period**.

OLD BABYLONIAN PERIOD (C. 2000–1600 B.C.). On the basis of linguistic rather than historical criteria, this period begins with the fall of the **Third Dynasty of Ur**, when documents began to be written again in **Akkadian**, until the end of the **First Dynasty of Babylon**. It also includes the time of the **First Dynasty of Isin** and the dynasty of **Larsa**. It was dominated by the rise in the empire of **Hammurabi** and marked by a different cultural orientation than that of the **Neo-Sumerian** period.

There were changes in the royal ideology: **kings** were now seen as arbiters of justice and “shepherds” of their people rather than remote and “divine.” There was also a greater participation of private citizens in the economic exploitation of the country and a more intensive growth of rural settlements. Another development of this period was the shift of political power from the south to the north of **Babylonia**, and the replacement of **Sumerian** as the official **language** of documentation by **Babylonian**. *See also* OLD BABYLONIAN.

OMENS (HISTORICAL). The scrutiny of everyday occurrences (e.g., weather patterns) as well as geographical, astronomical, and even social behavior for the purposes of eliciting warnings about impending disasters was a veritable science in Mesopotamia. It was considered a means of deciphering divine communications, which were encoded in a great variety of phenomena. The written records of earlier Mesopotamian **kings** were also studied as relevant case studies for ominous events. The famous kings of the **Akkad** period were especially scrutinized; **Sargon of Akkad** was interpreted as a ruler blessed by the **gods**, but **Naram-Sin** evoked more negative associations. *See also* ASTROLOGY/ASTRONOMY.

OPPERT, JULES (1825–1905). German-born scholar who began by studying law at Heidelberg before he switched to oriental studies at Bonn, working on Old Persian grammar and texts. In 1848 he moved to France and joined a French government-sponsored expedition to the Middle East to explore **Median** and Mesopotamian sites (1851–1854), where he identified the site of **Babylon**. He taught Sanskrit and comparative philology and, from 1860, Assyriology at the Collège de France, where he was made professor in 1874. He published a grammar of Assyrian in 1868,

and he identified that **Sumerian** was the hitherto unknown language used in **cuneiform** tablets and argued that this writing system was a Sumerian invention (*Études sumériennes*, 1876). He published numerous **Akkadian** tablets of various content, and pioneered the study of astronomic and **astrological** texts.

PAINTING. The earliest and most common form of painting in Mesopotamia is found on **pottery**. The bold and fluid lines of the **Halaf** ware from the **Neolithic** period and the multicolored, intricate patterns of much of the **Hassuna** pottery show great mastery in freehand design. Pottery of the later historical periods was often mass-produced and unpainted.

Evidence for wall painting in the form of murals is rare since pigments deteriorate and earlier techniques of excavation might have missed the remaining tiny fragments. Earliest examples date from the fourth millennium, from houses in **Uruk**, **Eridu**, and Tepe Gawra. The color triad was white, red, and black, a combination also used in the clay-cone mosaics that may have been more durable versions of painted decorative schemes. Apart from geometric designs, figurative scenes of animals were found at Tell Uqair, where the podium and the walls of the **temple** had been whitewashed before being painted; a spotted feline is well preserved.

The murals in the **palace** of **Mari**, dating from the 18th century B.C., show that painting, along with sculpture and the **art** of seal cutting (*see* CYLINDER SEALS), was highly developed. The conflagration that destroyed the palace left the walls standing to a height of several meters, and some paintings survived, buried in the rubble. Some of the walls were ornamented with decorative friezes of bands in black, ochre, blue, and white, which were applied directly onto the plaster covering the mudbrick walls. Elsewhere a thick coat of white gypsum provided the surface for a badly preserved scene of offerings, composed of animal and human figures. The biggest mural (1.75 × 2.50 meters), dubbed by the excavator **André Parrot** as “Investiture,” was applied onto a thin mud wash. It is a large-scale composition with a central scene of several frames. The central panel is composed of two rows; above is a **goddess** standing on a lion presenting the rod and staff as symbols of **kingship** to the ruler standing before her. These central figures are flanked by female deities, wearing checkered dresses, and a kilted male god. Below this scene are two goddesses in striped garments holding up water-spouting vessels. Palm trees and mythical beasts border the central panel on either side, on a pale-blue background depicting a sky full of fluttering birds. The figures of deities and humans were first outlined in black and then painted in a rich palette of colors: red and orange ochre, white, red, yellow, blue, and green, at places not with a brush but thickly applied with a small trowel. In its original state this painting must have presented a vivid impression. As it can be seen now, at the Louvre, it has considerably darkened, not least by the fire that

destroyed the palace.

The **Kassite** palace at **Dur-Kurigalzu** from the 14th century was decorated with a painted procession of male officials. Here the outline is rather heavily drawn in black and there is less detail in the rendering of the garments, though the contrast between the white fabric and the dark beards and hair is effective.

Some reliefs of the **Assyrian** palace from the first millennium show traces of paint and may have been intended to present a much more colorful impression originally. In the provincial palace of Til Barsip, where the stone orthostats may have been too expensive, geometric designs with rosettes and mythical beasts, as well as the usual hunting and fighting scenes, were painted in lime and watercolors, in black, red, and a bright blue, possibly using lapis lazuli.

PALACES. In archaeological terms, palaces are distinguished from large private residences and **temples**. They differ from the former by their greater size and number of rooms and by stricter measures of security reflected in the plan of the buildings. The distinction between temples and palaces is less clear-cut in the prehistoric periods, but from the third millennium B.C. onward, certain architectonic features (e.g., niches and shallow buttresses) are typically found in temples rather than palaces.

Since the function of a palace in Mesopotamia was that of not simply a royal residence and a very large household but also an administrative center, such diverse functions were accommodated around separate courtyards surrounded by a suite of rooms.

There was also a division between the public and private sector. Reception areas, such as the throne room, were protected by a complex route of access and could be splendidly appointed with glazed tiles (as in the palaces of **Nebuchadnezzar II** in **Babylon**), wall reliefs (as in the **Neo-Assyrian** palaces), or wall paintings (as in **Dur-Kurigalzu**).

One of the best-known Mesopotamian palaces is the one built by **Zimri-Lim** at **Mari**. There is evidence of careful planning before construction began, as can be seen by the subterranean drainage channels. There was one very large and several smaller courtyards. The circulation system allowed for tight supervision. This palace, like various others in **Assyria**, had its own **archive**, which detailed the substantial economic activities of the palace, as well as the diplomatic correspondence and the **administration** of the kingdom. It is probable that most of the rooms as found in excavations were for storage purposes and that residential quarters and offices were located on upper-floor levels. Evidence for the existence of such upper stories is generally indirect (stairwells, thickness of walls, lighting provisions, and the amount of rubble found within ground-floor rooms).

Palaces in the first millennium B.C., especially in **Assyria**, also had pleasure gardens and parkland within their perimeter walls. *See also*

PARROT, ANDRÉ (1901–1980). French archaeologist. From 1933 to 1974 he directed the French excavations of **Mari**, uncovering the vast royal **palace** with its important **archives**. He was chief curator of the French National Museums and director of the Louvre. He wrote mainly about Mesopotamian **art** and archaeology (*Archéologie mésopotamienne: Les étapes*, 1946; *Archéologie mésopotamienne: technique et problèmes*, 1953; *Sumer; Assur* [translated by Stuart Gilbert and James Emmons], 1960; *The Arts of Assyria* [translated by Stuart Gilbert and James Emmons], 1961; *Mari, capitale fabuleuse*, 1974).

PARTHIAN PERIOD (C. 238 B.C.–A.D. 224). Parthia was the region in northern Iran where Indo-European **nomads** from Central Asia began to settle in the mid-first millennium B.C. This area was then controlled by the **Achaemenid empire**. They began to form their own kingdom in the **Seleucid period**, when Arsaces, a leader of the Parni **tribe**, founded the Arsacid Dynasty around 238 B.C. He profited from the rebellions in Parthia and Bactria against the rule of Seleucus II and assumed control over most of central Iran, with a new capital at Dara.

Arsaces' successors enlarged the Parthian territory eastward to the Indus and westward to the **Euphrates**. **Mithridates I** (reigned 171–c. 139 B.C.) annexed Mesopotamia in 141, occupying **Babylon** and Seleucia. Having ousted the Seleucids, the Parthians remained in Mesopotamia while the region west of the Euphrates was under Roman control. They became wealthy due to the **trade** of luxury items along the Silk Road to China. This northern route contributed to the economic marginalization of southern Mesopotamia.

The Parthians established a new capital in Mesopotamia, Ctesiphon on the **Tigris**, which was destroyed by Trajan in A.D. 116. Thereafter, their power declined, and **Sassanians** established a new dynasty in A.D. 224.

PASTORALISTS. Nomadic or seminomadic herders of sheep and goats (in Mesopotamia). *See* **NOMADS**.

PERSIANS. Peoples speaking an Indo-European **language** who settled in Iran in the second millennium B.C. By the beginning of the first millennium, they spread westward to the Zagros, where they formed their first state, the Median kingdom (c. 720–550), with the capital at Ecbatana. After the elimination of **Elam**, they became a powerful force in western Iran, which was instrumental in bringing down the **Neo-Assyrian** empire. The **Medes** were in turn ousted by another Persian dynasty, that of the **Achaemenids** (550–330). After the conquest of **Alexander the Great** and the subsequent rule of the **Seleucids** over Iran, new Persian polities formed,

first the **Parthians** with the Arsacid Dynasty, and then the **Sassanians** (A.D. 224–642).

PORADA, EDITH (1912–1994). Austrian-born American art historian and archaeologist. Having studied at the University of Vienna, she moved to Paris to work on **cylinder seals** at the Louvre before emigrating to the United States in 1938. Here she became an expert on the ancient Near East in various museums, concentrating on collections of cylinder seals (*Seal Impressions of Nuzi*, 1947; *Corpus of Ancient Near Eastern Seals in North American Collections I: The Collection of the Pierpont Morgan Library*, 1948) and was made honorary curator of seals at the Morgan library. She had a teaching position at Queens University from 1950 to 1958 and thereafter at Columbia, where she became full professor in 1964 and Arthur Lehman Professor of Art History in 1973. Between 1970 and 1973 she conducted excavations in Cyprus. In 1983 Columbia University established an Edith Porada professorship of Ancient Near Eastern Art History and Archaeology with a \$1 million gift.

POTTERY. Deposits of pottery remains constitute the bulk of archaeological **tells** of Mesopotamia. The term pottery differentiates clay vessels and other household objects from figurines (called terra-cotta). The different shapes, decoration, burnishing, glazes, and sizes of pottery, the result of changes in taste and technology, furnish valuable and often vital clues to the relative dating of the object and its context. The technique of establishing pottery sequences was pioneered by the archaeologist Flinders Petrie in the 1890s in Palestine. It is particularly useful for prehistoric periods, but pottery sequences are also relevant in later periods.

Pottery was invented in the **Neolithic period** about 7000 B.C. Such early pottery was made in a slab construction method and only lightly fired. The earliest known kiln comes from Yarim Tepe and dates from 6000 (see HALAF; HASSUNA). The most beautifully fashioned, thin-walled, and hand-painted pottery in the Near East dates from the **Chalcolithic period**. Decorated with centrifugal designs and of elegant shapes, such tableware was in much demand throughout Mesopotamia and seems to have been used for banquets and other special occasions that called for the display of valuables. Coil-made pottery dominated until the invention of the slow wheel, a turntable rotated by hand, which first appeared in Mesopotamia around 4000 B.C. and was used mainly to fashion coarse, mass-produced jars.

Exquisite pottery became less important in the historical periods; **gold** and other **metals** replaced fired clay in prestige tableware. The fast wheel, used to “throw” pottery, was introduced in the late third millennium B.C., again for mass-produced ware.

Potters often worked together in separate quarters of Mesopotamian

cities; they could work for a large organization in teams (as in the time of the **Third Dynasty of Ur**) or as private craftsmen. *See also* ART; CRAFTS.

PRIESTS. Mesopotamian **temples** commanded considerable manpower to work the agricultural estates, the various workshops, **administration**, and general maintenance of buildings and equipment. The service of the cult, the care for the divine statues residing in inner precincts of the temple, the daily offerings, and the liturgies also demanded considerable personnel. There was no general distinction between those who worked in the “secular” sector and those who performed “priestly” functions. In fact, a number of sacerdotal functions could be carried out on a part-time basis (so-called prebends). Those who had any contact with the sacred precincts of the temple had to ensure that they were in a state of ritual purity, attained by ablutions as well as by the incantation of purificatory formulas.

Some categories of priests, especially those with intimate contact with divine statues, had to fulfill specific physical, ethical, and psychological requirements to qualify for the profession. Like **scribes**, certain high-status categories of priests belonged to families where the office passed from father to son. Literacy was mandatory for most cult specialists, who had to be knowledgeable in liturgical procedures, chants, and prayers. Highly trained staff performed exorcistic and healing rituals, solicited and interpreted omens, and advised the **king**. Some classes of temple personnel wore distinguishing clothing, hats, and other accoutrements that are depicted on **cylinder seals** or in **Assyrian** reliefs. Ritual nudity, as shown on **Early Dynastic** plaques, was discontinued after the **Akkadian** period. The daily services included musicians, singers, cult performers, and dancers, both male and female.

A great number and variety of professional titles for temple personnel have been preserved in the administrative records as well as in **lexical lists**, but it is not always clear which function was implied at any given period. The highest office in the administrative hierarchy during the **Uruk period** was that of the *EN*. In the Predynastic period, this was used as the title of the city ruler, especially at **Ur**; in later times, however, it denoted purely cultic responsibility. Great prestige was given to the office of the female *EN* (Akkadian *entu*), who served the moon god (*see* NANNAR) at Ur and who was often of royal blood. During the **Old Babylonian period**, the institution of the *naditu* women, who lived in a cloisterlike enclosure, flourished. The function of many other female cult specialists who appear in administrative, omen, and literary texts remains obscure. *See also* RELIGION.

RASSAM, HORMUZD (1826–1910). Archaeologist and explorer. Son of an archdeacon of the Assyrian (Chaldean Christian) Church of Mosul, and brother of the English consul there, he became a clerk of **Austen Layard** in 1848, assisting in the excavations of Nimrud (**Kalhu**) and **Nineveh**. He continued digging there for the British Museum after Layard left in 1852, and made the spectacular discovery of the North Palace of **Ashurbanipal**, with its famous lion-hunt reliefs and the ruins of the library with its substantial collection of tablets. His work for the British government took him also to Arabia and Abyssinia, where he was imprisoned for two years in a failed attempt to free Jewish missionaries.

He returned to archaeological work from 1878 to 1882, again on behalf of the British Museum (see his accounts in his book *Asshur and the Land of Nimrod*, 1897). He had a striking ability to identify the most propitious place for excavations, with often immediate, stunning results, as at **Sippar**, where his workmen found the remains of the **Shamash** temple and the **foundation deposits** of Nabuapla-iddina, or at Balawat, where he found the bronze gates of the **palace** of **Ashurnasirpal II**. His later years were overshadowed by a libel suit claiming that he had kept antiquities for himself, which he fought and won. He died in Hove, near Brighton, where he had retired in 1882.

RAWLINSON, HENRY CRESWICK (1810–1895). English soldier, diplomat, and one of the decipherers of **cuneiform** writing. In 1827 he joined the East India Company as a cadet and learned Persian. He was sent to Persia to train the shah's troops and came across monumental rock inscriptions at Behistun. Using ropes and ladders, he made copies and squeezes of the text, which was written in cuneiform. He found that the same text was written in three **languages**, using cuneiform characters, and that one of them was ancient Persian and contained the names of the **Achaemenid kings Darius** and **Xerxes**. This furnished clues as to the phonetic values of certain signs, and he presented his translation to the Royal Asiatic Society in 1837 and 1839. When he was appointed British consul to Baghdad in 1843, he had the opportunity to visit **Austen Layard's** excavations at **Nineveh** and work on his account of the Behistun inscriptions. In 1853 he excavated the **ziggurat** at **Borsippa**.

He returned to England in 1855, where he continued his scholarly activities while pursuing a diplomatic career in the East India Company, and received many honors. Of great importance for the development of

Assyriology, and for decades the main source of reference, was the publication *The Cuneiform Inscriptions of Western Asia* (with Edwin Norris, George Smith, and T. G. Pinches) in 1861 and 1866, which comprised historical and religious texts, as well as **lexical lists** and **Sumerian-Akkadian** bilingual texts.

REINER, ERICA (1924–2005). Hungarian-born American Assyriologist. She studied linguistics at Budapest University before attending the École Pratique des Hautes Études in Paris, where she studied **Akkadian**, **Sumerian**, and **Elamite**. In 1952 she went to the Oriental Institute at the University of Chicago, where she worked on the Assyrian Dictionary project, initiated by Leo Oppenheim, which she directed after the latter's retirement in 1973 for the next 20 years, until 1993 (see her memoir *An Adventure of Great Dimension: The Launching of the Chicago Assyrian Dictionary*, 2002). She also helped to establish an annual scholarly meeting, the Rencontre Assyriologique Internationale, and published a number of important works in the fields of lexicography, grammar, **astronomy**, **divination**, and literature (*A Linguistic Analysis of Akkadian*, 1966; *Shurpu: A Collection of Sumerian and Akkadian Incantations*, 1970; *Babylonian Planetary Omens*, 4 volumes, 1975–2005 [with D. Pingree]; *Your Thwarts in Pieces, Your Mooring Ropes Cut: Poetry from Babylonia and Assyria*, 1985).

RELIGION. Our understanding of Mesopotamian religious practices and beliefs rests primarily on **cuneiform** data. At the beginning stand **lexical lists** compiled of hundreds of names of **gods and goddesses**, which date back to the **Uruk period** and were subsequently copied and edited throughout Mesopotamian history. They begin with the most prominent deities, the gods of heaven, the sun, the moon, and the planet Venus; gods associated with storms and floods, as well as creation and **magic**; and those who are tutelary deities of specific places, **crafts**, or institutions, as well as chthonic deities and many more whose functions and character are not discernible (see ADAD; ANU; ASSUR; BABA; DAGAN; DUMUZI; EA; ENLIL; ERESHKIGAL; GULA; INANNA; ISHKUR; ISHTAR; LUGALBANDA; MARDUK; NABU; NANNA(R); NERGAL; NINGAL; NINHURSANGA; NINURTA; SIN, SHAMASH).

The first **royal inscriptions** make reference to powerful deities who are said to have given their support to **kings** and rulers who thus present themselves as acting under divine command. Very important are the numerous ritual tablets that preserve the part of Mesopotamian liturgical practice. These sometimes include narratives featuring divine beings (myths), which portray the relationship between deities and tell of their benevolent or malevolent actions toward human beings. The spoken or chanted word was an intrinsic part of Mesopotamian worship, whether this

was carried out in specially designated spaces (**temples**) or within households.

Archaeological evidence provides some information on epochs before **writing** was invented, although the interpretation of statues and of visual symbolism on various surfaces, such as on **pottery** and architectural ensembles, is by necessity tentative. Excavations allow insights into the layout and successive rebuilding of temples and have shown the existence of small shrines and chapels within the fabric of **cities**. Relatively few cult images have survived, not least because, having been fashioned from precious materials and adorned with jewels, they were a target for looters from antiquity onward.

Characteristic of Mesopotamian religion, as far as we can reconstruct it on the basis of the literary evidence, is the notion that although the gods are ontologically different from human beings and live eternally in a divine realm, they share some of their substance with mortals. Having created the universe and life, they have an interest in the maintenance of this ordered cosmos and are committed to the survival of humankind as a species. They also consent to be present on earth, among the “black headed people,” as the inhabitants of Mesopotamia were called, and to dwell in the “houses” we call temples, where their presence is made manifest by cult images and statues which, though made from inert materials such as wood, **metal**, and stone, were endowed with divine power through specific rituals and incantations. Cult statues were subject to daily ritual cares that echoed those of mortal kings and were performed by a person entrusted with such priestly offices (*see* PRIESTS). The relationship between the gods and their human subjects was made explicit through the regime of offerings and sacrifices. **Food** and drink in the form of libation was presented to the gods and thereafter distributed among the staff of the temples. The burning of aromatics and the presentation of valuables, especially by royalty, were also common practice. The gods were also transported on journeys, from one city to another, and carried in processions at **festivals**, allowing the citizens a glimpse of their splendor.

Some **Old Babylonian** texts reveal a belief in a “personal god” who was intimately linked to an individual and whose continuing protection was sought by prayer and sacrifice but also by ethical conduct to avoid causing divine anger, which would bring suffering or even death.

The notion that the universe was ordered and maintained by divine will and that the gods are in some measure dependent on human beings for their sustenance, a thought that informs the various stories of the flood, did not remove anxieties about the basic unpredictability of existence and the willful exercise of divine command. A great number of rituals were concerned with the “decree of (good) fate,” and a huge effort was made over many centuries to develop methods of ascertaining the will of the gods. The basic premise that the gods communicate their intentions in a

coded manner led to the development of divinatory systems (*see* OMENS) that made these covert messages intelligible and made it possible to respond, with sacrifices and rituals, as appropriate.

See also CREATION MYTHS; DIVINATION; FUNERARY AND BURIAL PRACTICES; GILGAMESH; IMMORTALITY; MAGIC; OATHS; OMENS; ZIGGURAT.

RIM-SIN I (REIGNED 1822–1763 B.C.). Babylonian king of **Larsa**. In the aftermath of the collapse of the **Third Dynasty of Ur**, it was at first the **city** of **Isin** that won supremacy in Mesopotamia. Rim-Sin fought long and hard to challenge Isin's position from his own power base at Larsa. He defeated a coalition of other cities led by the king of **Uruk**, and in his 13th year (1796), he captured Isin, leaving him in control over the whole of southern Babylonia (the north was more fragmented into rival polities, such as the kingdom of **Babylon**).

Rim-Sin was thus one of the most powerful rulers in Mesopotamia at this time, and he also enjoyed an unusually long reign of 60 years that allowed him to implement important **administrative** and legal reforms concerning land ownership. His reluctance to join in a pan-Babylonian coalition against **Elam** resulted in **Hammurabi**'s anger and attack on Larsa in 1764. Rim-Sin was taken prisoner to Babylon, where he presumably died.

RIMUSH (REIGNED C. 2284–2276 B.C.). King of **Akkad**, son and successor of **Sargon of Akkad**. According to his own inscriptions, he had to repress widespread revolts in the **Sumerian** cities at the beginning of his reign. He also campaigned against **Elam**, from where he returned with rich booty. He stayed on the throne for just nine years and was replaced (perhaps violently) by his brother **Manishtusu**.

ROYAL INSCRIPTIONS. Mesopotamian **kings** since the **Early Dynastic period** were keen to transmit records of their achievements for posterity. They furnish some of the most important sources for Mesopotamian history. The earliest examples of such texts consist only of a few lines to record the name and title of the king, perhaps with a mention of his most important conquest. They are generally couched in the first-person singular as personal testimony.

Since it was a royal responsibility to repair **city** walls and **temple** buildings, the kings commemorated such activities on **building inscriptions** that were deposited within the architectural structure of the edifice. The royal inscriptions of kings from the **Akkad Dynasty** were engraved on stone monuments and set up in the courtyard of the **Enlil** temple at **Nippur**. Some of them were written in both **Sumerian** and **Akkadian** and enumerate the campaigns of the kings, as well as their building activities, and they include lengthy references to the **gods** of

Sumer and **Akkad**, who were said to have entrusted **kingship** to the rulers.

Such passages of ideological content can already be found in inscriptions by some of the Early Dynastic rulers. The royal inscriptions of the Akkad kings were studied by later generations of **scribes**, and extant examples are mainly **Old Babylonian** copies of the originals. They were to serve as models and inspiration for future generations of scribes who had to compose royal inscriptions.

Not all such texts became part of the scribal tradition. The beautifully worded inscriptions of **Gudea**, the ruler of **Lagash**, for instance, were deposited in the temples of **Girsu** and left there. The kings of the **Third Dynasty of Ur** preferred a different style in which the king was addressed in the third person. Such texts are known as “royal hymns.”

The **Assyrian** kings, too, gave a special form to the genre and developed **annals** that were royal inscriptions composed annually to record the mainly military achievements of the monarchs. Annals are also written in the first person. Other Assyrian royal inscriptions were engraved on **palace** wall reliefs to accompany the visual representations. They deal not only with conquest but also with civic projects, such as the building of aqueducts, or the royal hunt. The Assyrian inscriptions abound in detail and observations and can comprise hundreds of lines of texts.

The **Neo-Babylonian** examples concentrate on the kings’ architectural projects, such as the works in **Babylon** under **Nebuchadrezzar II** or at **Harran** by **Nabonidus**.

SAMSU-ILUNA (REIGNED 1749–1712 B.C.). Babylonian king of the **First Dynasty of Babylon**, son and successor of **Hammurabi**. He managed to hold together the substantial kingdom created by his father despite mounting internal and external pressures. In his ninth regnal year, he had to do battle against the **Kassites** and also faced a general revolt led by the king of **Larsa**, Rimush II, whom he defeated. Otherwise, the country enjoyed a measure of stability, as the many **administrative** and legal tablets from his nearly 38-year reign document.

SARGON II (REIGNED 721–705 B.C.). Assyrian king who acceded to the throne in unclear circumstances after the death of Shalmaneser V. His succession was not uncontested, though he was backed by the citizens of **Assur**. There were also rebellions from **Assyria**'s vassals, and in 720, Sargon faced a coalition of Syrian contingents at Qarqar, which he defeated. He then marched south toward the **Egyptian** border where he stationed a garrison at Gaza. He was less successful in **Babylonia**, where the Assyrian **army** was beaten by the **Elamite** allies.

Sargon's northern campaigns against **Urartu** and the Mushki (i.e., the Phrygians under their king Midas) took up several years. Midas, who had been accused of fomenting rebellions against Assyria, was forced to a peace treaty, and the Urartians were beaten in battle. Sargon also sacked the **city** of Musasir, as the wall reliefs in the **palace** of his new city, **Dur-Sharruken** (Sargon's Fort), illustrate.

Sargon could then concentrate on sorting out Babylonia; he chased **Merodach-baladan** into exile and assumed direct rule over the country. Sargon died on another campaign in **Anatolia**. His grandiose new foundation, "Sargon's Fort," was abandoned by his successors. His immediate successor was his son **Sennacherib**. *See also* SARGONIDS.

SARGONIDS. The Assyrian dynasty founded by **Sargon II** in 721 B.C., which also included his son **Sennacherib**, his grandson **Esarhaddon**, and **Ashurbanipal**.

SARGON OF AKKAD (REIGNED C. 2340–C. 2284 B.C.). King and founder of the **Akkadian Dynasty**. Sargon became the subject of a variety of **cuneiform** texts in which he is generally portrayed as an exemplary ruler. He was described as destined by the **gods** (especially **Ishtar**) to conquer the "four corners of the universe" and as presiding over peace and

prosperity. Some of these accounts also credit him with a mysterious birth (by a **priestess**) and a miraculous Moses-like rescue from abandonment in a basket in the river. He was said to have journeyed very far and to have settled disputes in **Anatolia**. Much of this is fictional, but even the evidence of his **royal inscriptions**, which were copied in the **Old Babylonian period**, is confusing, and the chronology of events referred to in his royal inscriptions remains problematic.

It appears that Sargon began his career a courtier of King Ur-Zababa of **Kish**. His rise to power was triggered by his victory over **Lugalzagesi** of **Uruk**. He then gained control over all the other **Sumerian cities** but based himself at **Akkad**, presumably a new foundation. He always called himself king of Akkad. During his long reign, he claims to have led various campaigns abroad: he subdued **Elam** to the east and moved westward, conquering **Mari** and other cities in Upper Mesopotamia and southern Anatolia. Sargon promoted the use of the Semitic **language Akkadian** in his inscriptions. His daughter Enheduanna was appointed priestess of the moon god at **Ur**.

SASSANIAN DYNASTY (A.D. 224–651). A **Persian** dynasty named after an ancestral figure called Sasan. King Ardashir I (reigned A.D. 224–241) founded a new, sometimes called Neo-Persian, empire, after he had defeated Artabanus V, the **Parthian king** of the Arsacid Dynasty in 224. His territory stretched from the **Euphrates** to the Indus River. The Sassanians revitalized what they considered to have been the cultural traditions of the **Achaemenid Dynasty** to formulate a truly Persian national identity.

Zoroastrianism was the official religion, and the fire cult was vigorously promoted. Ardashir and later his son, Shapur I (reigned A.D. 241–272), also attacked Roman possessions in Armenia, **Anatolia**, and Syria, but following the counterattacks, they had to be content with the same western frontier as that of the Arsacid empire, and their only non-Iranian province remained the district of the **Tigris** and Euphrates as far as the Mesopotamian desert, while the west and the north remained under Roman control. Under their rule, southern Mesopotamia became a peripheral outpost with a dwindling population, marginalized because of border conflicts with Rome and later Byzantium.

The Sassanian royal house was beset by internal rivalries resulting in intrigues and assassinations. The long struggle against Rome had exhausted the treasury and the vitality of the dynasty. The final blow came from the **Arabs**. The battle of Kadisiya in A.D. 637 brought victory to the Islamic Arabs and marked the end of the last Zoroastrian dynasty in Iran.

SCRIBES. Since the invention of **writing** in the late fourth millennium B.C., scribes were instrumental in the development of the **administrative**

structures that made Mesopotamian **cities** economically competitive. Literate bureaucrats became a mainstay of Mesopotamian institutions, forming a kind of civil service sector that operated in large **temple** estates, the **palace**, and, to a lesser extent, for private businesses. Centralized states, such as the **Third Dynasty of Ur** or the **Neo-Assyrian** empire, were particularly reliant on their services.

One of their main responsibilities was accounting. Scribes had to keep track of daily expenditures (on rations for the laborers, equipment, materials, etc.), tally the income from diverse sources, and keep annual records that showed the balance of each account. In **Assyria**, scribes also accompanied the **army** on campaign; several reliefs show how they counted severed heads or hands for the battle statistics or itemized **tribute** payments. Scribes formed part of the personnel within a hierarchically structured labor organization. They underwent often lengthy training, and relatively few assumed positions of authority.

Apart from the bureaucratic function, scribes were concerned with the classification of knowledge. They composed lists of signs and lexical lists that constituted an attempt to provide reference works for scribal training and at the same time codify the material and intellectual repertoire of Mesopotamian civilization. They were also concerned to preserve important oral traditions, such as myths, proverbs, songs, and esoteric wisdom. As such, scribes became guardians of a literary tradition that was accorded the value of antiquity and the weight of authority. This gave the highly trained scribes considerable influence at court, for instance, since they were able to underpin ideological changes or, indeed, to resist them. A number of literary works are now thought to have been politically motivated (*see* ASSYRIAN, BABYLONIAN, SUMERIAN KING LISTS; CREATION MYTHS; ROYAL INSCRIPTIONS).

As intellectual elites, scribes had most leverage in connection with esoteric knowledge, such as **divination** (*see* OMENS), **magic**, and **astrology/astronomy**. This is particularly evident in the late Neo-Assyrian empire.

In the late period, the prestige of scribes seems to have been at its peak. Although at the time of the Third Dynasty of Ur, King **Shulgi** had boasted of having a solid scribal education, as did **Ashurbanipal** much later, literacy was not a requirement for the exercise of **kingship**. While in previous centuries most scribes, except for the purposes of bureaucratic responsibility, remained anonymous, from the **Neo-Babylonian** period onward, scribes wrote their names and pedigree on the tablets they copied or composed. From such “colophons,” it appears that many came from scribal families who had practiced the arts of writing for generations. One of the most famous of these scribal ancestors was **Sin-leqqe-unninni**, the reputed author of the **Gilgamesh** epic. *See also* LEXICAL LISTS.

SEALAND (BABYLONIAN MAR TAMTIM). The name for the southernmost region of **Babylonia**, including the extensive marshlands of the gulf. The region was important for its access to the sea and seaborne **trade**, and the marshes were a well-known refuge for political adversaries. In the first millennium B.C., the Sealand was controlled by **Chaldean** tribes. *See also* SEALAND DYNASTIES.

SEALAND DYNASTIES. There were two: (1) The First Sealand Dynasty was established during the lifetime of **Samsu-iluna** (reigned 1749–1712) in the **Old Babylonian period** to the detriment of **Babylonia's** sea **trade**; little is known about this dynasty, which was founded by Iluma-ilum. (2) The Second Sealand Dynasty lasted from 1026 to 1006 B.C. and was founded by Simbar-Shipak (reigned 1026–1010). He controlled much the same area as the **Second Dynasty of Isin** and was recognized as a legitimate king in **Babylon**. After his reign, rulers followed each other in quick succession due to **palace** intrigues.

SEA PEOPLE(S). Generic name, coined by the Egyptologist Gaston Maspéro, for invading people who were held responsible for the collapse of late **Bronze Age** culture in **Anatolia** and the eastern Mediterranean. They were likely to have been **tribal** groups of people moving with women and children, as well as war bands engaged in raiding and piracy. Their activity was not the direct reason for the collapse of states like that of the **Hittite** empire but it coincided with internal unrest, outbreaks of disease, and bad harvests, which led to a massive displacement of people throughout the western part of the ancient Near East, causing further instability and economic breakdown. Their attack on **Egypt** in 1191 by ships on the mouth of the Nile and the victory gained by the pharaoh Ramesses III were depicted on large wall reliefs on his mortuary **temple** at Medinet Habu. Their weapons, ships, and equipment, as well as the names recorded, suggest an Aegean origin of at least one group, the Philistines, who were settled by Ramesses in southwest Palestine.

SECOND DYNASTY OF ISIN (1155–1027 B.C.). After the **Elamite** attacks on **Babylonia**, which brought the **Kassite Dynasty** to an end, the center of power again shifted southward, where a new dynasty was founded by Marduk-kabit-ahheshu in c. 1155 at **Isin**. There were 11 **kings** altogether, though only some of them are known from contemporary sources. The most outstanding ruler was **Nebuchadrezzar I** (reigned c. 1126–c. 1105), who defeated **Elam** and returned the abducted statues of the **god Marduk** and his consort Sarpanitum. Another successful and long-reigning king was **Marduk-nadin-ahhe** (reigned 1100–1083), a contemporary of the **Assyrian** king **Tiglath-pileser I**, although the end of his reign was overshadowed by famine and unrest caused by intensified tribal

immigration by the **Arameans**. This was to remain a source of instability until the demise of the Second Dynasty of Isin during the time of its last king, Nabu-shumu-libur (reigned 1034–1027).

SELEUCID DYNASTY (305–141 B.C.). Dynasty founded by **Seleucus I Nicator**, who was one of the generals in the **army** of **Alexander the Great**. In the struggles over the succession to Alexander's empire, Seleucus obtained most of the Asiatic territories and all of Persia, Bactria, and Mesopotamia, and he introduced a new dating system in **Babylonia** that began on 3 April 311. Greek became the **language** of **administration**. The capital was a new foundation, Seleucia-on-the-Tigris. He and all of his successors were engaged in constant, often violent confrontations with the Ptolemies, another Macedonian dynasty that ruled from **Egypt**. The objects of these fights were the fertile and wealthy regions in Syria and Palestine. The Seleucids lost Mesopotamia to the **Parthians** in 141 B.C.

SELEUCUS I NICATOR (REIGNED 305–281 B.C.). Macedonian general who accompanied **Alexander the Great** on his campaign to India. After Alexander's death in 321, Seleucus assumed the office of regent after the murder of Perdiccas. When the empire was partitioned, he became satrap of **Babylonia**. He was dislodged by **Antigonos**, fled to Egypt to Ptolemy I, and eventually returned to **Babylon** after 315. He then campaigned to gain control over the Iranian provinces. His coronation as **king** of Babylonia was hotly contested by Antigonos, who continued to raid and devastate the country but was finally defeated in 301 at Ipsus in Syria.

Seleucus now controlled the former satrapy of Syria and half of **Anatolia** and thus commanded an empire almost the size of Alexander's (with the exception of Egypt). He founded several new **cities**, including the new capital Seleucia-on-the-Tigris, initiated a new dating system and the era of the **Seleucids**, made Greek the official **language**, and promoted Hellenistic culture in Mesopotamia.

SEMIRAMIS (SAMMU-RAMAT IN ASSYRIAN). **Assyrian** queen, wife of **Shamshi-Adad V** (reigned 823–811 B.C.), mother of **Adadnirari III**. This woman achieved remarkable fame and power in her lifetime and beyond. According to contemporary records, she had considerable influence at the Assyrian court; she was able to erect her own inscribed monuments in the ceremonial center of **Assur**. She even accompanied her husband on a military campaign, a most unusual undertaking for an Assyrian queen. After the death of Shamshi-Adad V, she assumed the office of regent for five years while Adadnirari was a minor.

Semiramis became the subject of legendary tales, and **Herodotus** credits her with building the embankments in **Babylon**. According to Diodorus Siculus, she was semidivine, nourished as an infant by doves, and of

exceptional beauty, and she became the wife of the Assyrian king Ninus. She then had a most extraordinary career, founding Babylon and a world empire that stretched from **Egypt** to India, returning eventually to **Nineveh**, where she changed into a dove, having handed her empire to her son Ninyas.

SENNACHERIB (SIN-AHHE-ERIBA IN ASSYRIAN; REIGNED 704–681 B.C.). Assyrian king. Despite the plentiful and varied sources for his reign, the sequence of events is still disputed. Sennacherib, whose name (“Sin has compensated [for dead] brothers”) suggests that he was not a first-born, was groomed for royal succession by his father **Sargon II**, and was entrusted with **administrative** duties from an early age. Even so, his succession after Sargon’s sudden death on campaign was not unproblematic and unleashed a series of revolts. The Egyptian pharaoh incited the kings of Sidon, Ascalon, and Judah to rebel against Assyrian rule, an uprising that was put down by Sennacherib’s general.

Merodach-baladan had meanwhile returned to **Babylon** and assembled a large force of **Chaldean, Aramean, Arab, and Elamite** troops. Sennacherib marched to **Babylonia**, defeated the coalition, appointed a new ruler, Bel-ibni, and led a punitive campaign against the **Bit-Yakin tribe** in the marshes. He then replaced the unreliable Bel-ibni with his own son and continued to rout the southern tribes with the help of a fleet of Phoenician-built ships he had transported by land and river to the Persian Gulf.

While he was busily engaged in the south, the Elamites invaded northern Babylonia and kidnapped his son, the regent in Babylon. This led to another series of clashes between Elamite–Babylonian coalitions and the Assyrians, while the son of his old foe Merodachbaladan had assumed the throne of Babylon. Sennacherib set siege to the **city**, which held out for 15 months, and vented his fury on the “holy city.” This deed was not only abhorred as sacrilege by the Babylonians but also caused much consternation in Assyria, where the **gods** of Babylon were held in high esteem.

Sennacherib is also remembered for his ambitious building program at **Nineveh**, which he made into his capital. He was very interested in engineering and personally supervised the construction of aqueducts and transport of the colossal human-headed bulls that guarded the **palace** gates. He was also very fond of plants and collected a great variety of species from all over the empire to grace the gardens of Nineveh. He died a violent death, perhaps at the hand of one of his own sons.

SHALMANESER III (REIGNED 858–824 B.C.). Assyrian king, son and successor of **Ashurnasirpal II**. Having inherited the vast empire his father had built, he was hard-pressed to maintain Assyrian hegemony in the face of widespread revolts. He relied on diplomacy coupled with a show of force when deemed necessary and thus managed to expand Assyrian influence

even further.

The most persistent problems were in Syria. Here a coalition of local rulers was formed who assembled their troops for a violent confrontation with Assyrian forces. This alliance was commanded by the sheikh of the Bit-Adini, who were a powerful **tribe**. Sennacherib defeated them, and Bit-Adini became an Assyrian province.

Some time later, though, he faced a much more serious contingent of rebellious polities led by the kings of Hamath and Damascus. Here, too, he claimed victory in a great battle at Qarqar on the Orontes in 853, but the coalition was to continue its resistance activities for some years after that.

Shalmaneser was on friendly terms with **Babylonia** and supported its king, Marduk-zakir-shumi, when he faced a rebellion by his own brother. Sennacherib used the opportunity to show his strength to the **Aramean** and **Chaldean** tribes and made a tour of the major Babylonian **temples**. He also campaigned in Anatolia, especially against **Urartu**. In his capital, **Kalhu**, he built temples, a **ziggurat**, and a large fortress.

SHAMASH. Babylonian sun god. According to the personal names from the **Akkad** period, the sun deity, as in other Semitic cultures, may have originally been female. In Mesopotamia, Shamash became identified with the **Sumerian** sun god **Utu**, whose shrine was at **Larsa**.

In the **Old Babylonian period**, Shamash came to be seen as the supreme arbiter of justice—**Hammurabi** on the stele with his **law** code is seen to receive the symbols of **kingship** from the sun god. At this time, the main sanctuary of the sun god was at **Sippar**, where he resided in the Ebabbar, the “shining house,” to the detriment of the temple at Larsa.

In Babylonian hymns and prayers, Shamash is not only invoked to safeguard the rights of individuals but to guard all those on a journey, such as merchants and soldiers, and to combat evil in the many apotropaic and curative rituals and incantations. The wife of Shamash was Aya, who was the patron of a special category of cloistered (**naditu**) **women** during the Old Babylonian period. *See also* RASSAM, HORMUZD.

SHAMASH-SHUMA-UKIN (REIGNED 667–648 B.C.). Assyrian king of Babylon. He was the eldest son of King **Esarhaddon** of Assyria, who had appointed his younger son, **Ashurbanipal**, to be his successor while he destined Shamash-shuma-ukin to rule Babylon. If this arrangement was meant to secure brotherly unity between the two countries, it did not succeed. Ashurbanipal’s position was much stronger, and he treated his older brother like any other vassal ruler, making him swear an **oath** of allegiance and maintaining a policy of noninterference as long as there was no trouble.

Shamash-shuma-ukin was no doubt under pressure from the citizens of Babylon to push for a speedy return of the divine statues that his

grandfather **Sennacherib** had removed from their sanctuaries, but Ashurbanipal prevaricated. Neither did he come to punish the raids by **nomadic** tribes that Babylonia suffered at this time.

Shamash-shuma-ukin decided to find support elsewhere and sought allies among **Arab** and **Chaldean** tribes and from **Elam**. Babylonia became split into a pro-Assyrian faction, which comprised the old **cities** in the south, and the rebellious party led by the Chaldeans. Although Ashurbanipal seems to have been reluctant to intervene with arms, clashes between Assyrian and rebel forces went on for several years. The Babylonian side was weakened by mutiny among the Elamite troops and by the capture of the Chaldean leader Nabu-bel-shumati. Ashurbanipal then brought down his full force and set siege to Babylon, which was taken after two years, with terrible deprivation and suffering caused to the inhabitants. Shamash-shuma-ukin probably died in the final assault in his **palace**.

The conflict between the brothers and the renewed destruction of Babylon did much to incite hatred against Assyria.

SHAMSHI-ADDU I (ALSO SPELLED SHAMSI-ADAD; REIGNED 1813–1781 B.C.). Amorite king of **Assyria**, who usurped the throne of **Assur**. Shamshi-Addu built up a powerful kingdom that stretched from the foothills of the Zagros to the valleys of the Habur and Balik in Syria and included much of northern **Babylonia**. He captured **Mari**, where he put one of his sons in charge; the **archives** in the Mari palace furnish much detail about Shamshi-Addu's maneuvers. Like his younger contemporary, **Hammurabi** at **Babylon**, he was one of those Amorite rulers who were very skillful in the use of diplomacy and the making of alliances, backed up by a shrewd and decisive deployment of force. Unlike Hammurabi, who inherited and built up a well-functioning **administrative** apparatus, Shamshi-Addu, despite employing Babylonian **scribes**, relied primarily on his personal connections and judgment. It was therefore not surprising that the large territory he had held together disintegrated rapidly after his death.

SHAMSHI-ADAD V (REIGNED 823–811 B.C.). Assyrian king. He fought for four years to sustain his succession after the death of his father, Shalmaneser III. He was perhaps even helped in this by the king of **Babylon**, Marduk-zakir-shumi. When there were problems in Babylon after the death of his ally, Shamshi-Adad responded in a particularly brutal way: he invaded **Babylonia** and ravaged the countryside, having taken the new king Marduk-balassu-iqbi to **Nineveh**, where he was flayed.

SHAR-KALI-SHARRI (REIGNED C. 2223–2198 B.C.). Akkadian king, son of **Naram-Sin**. According to the surviving inscriptions from his reign, Shar-kali-sharri devoted much of his time to defending the Akkadian empire from external and internal threats. Soon after his accession, he had

to drive back the **Elamites**, who had invaded the region north of **Akkad** and besieged the town of Akshak. Elam, though repulsed from Akkad, continued to grow in strength and influence. The **Gutians** also conducted persistent raids into the valleys of the **Tigris**, which abated after Shar-kali-sharri managed to capture their king, Asharlag. In the west, he campaigned against the **Amorites** and pushed them back behind Jebel Bisri. His most important building project was the reconstruction of the **temple** of **Enlil** at **Nippur**.

Shar-kali-sharri abandoned the use of the divine determinative that his father Naram-Sin had introduced. Despite his efforts and successful military campaigns, he was not able to protect his state from disintegration, and after his death, written sources dried up in a time of increased anarchy and confusion.

SHULGI (REIGNED C. 2094–C. 2047 B.C.). Sumerian king of the **Third Dynasty of Ur**. He was the second king of this dynasty founded by his father **Ur-Nammu** and concentrated on setting up a solid framework for the efficient and unified **administration** as well as defense of a centralized state that encompassed all of Mesopotamia. He created a standing **army** that was able to respond rapidly to any foreign threat and a host of bureaucrats to supervise the implementation of new **tax** regulations, as well as the state-owned and -managed production and distribution of **agricultural** and artisanal goods.

Scribal training had to be intensified to meet the demand for literate personnel. All records were written in Sumerian. Shulgi also introduced a new official calendar to replace the many different local systems of reckoning time, and **weights and measures** were standardized. **Temple** estates also came under the supervision of state-appointed officials.

To legitimize such radical reforms, which curtailed the economic independence of the Sumerian **cities** to an unprecedented degree, Shulgi elevated **kingship** to a divine office and, as in the times of **Naram-Sin** of **Akkad**, wrote his name with the divine determinative and ordered a cult of his statues. He was enthusiastically lauded by royal hymns, which describe his intimate relations with the great gods of **Sumer** (he was the “brother” of the sun god, and the “husband” of **Inanna**), as well as his physical and intellectual qualities.

In his foreign policy, Shulgi used diplomacy (especially dynastic **marriages**) as well as military campaigns. His greatest success was the conquest of Anshan (in western Iran), which became part of his empire. Shulgi may have died a violent death in a **palace** revolt. He was succeeded by his son, **Amar-Suen**. *See also* ABI-SIMTI.

SHURUPPAK (MODERN FARA). Sumerian city in southern Mesopotamia. It was inhabited from the **Jemdet Nasr period** (c. 3000

B.C.) until the end of the **Third Dynasty of Ur** (c. 2000). The city knew its greatest extent (some 200 hectares) in the **Early Dynastic period**. From this time of Early Dynastic III (mid-third millennium) come a large quantity of **administrative** tablets with details about extensive land management involving thousands of workers, as well as literary works and lexical tables. There is also evidence of relationships and collaborative projects with other Sumerian cities, such as **Uruk**, **Adab**, **Nippur**, and **Lagash**. In the Sumerian tradition, Shuruppak was the home of the flood hero Utnapishtim.

SHU-SIN (ALSO SHHU-SUEN; REIGNED C. 2037–2027 B.C.).

Sumerian king, fourth of the **Third Dynasty of Ur**, successor of **Amar-Suen**. In an effort to ward off encroachments from **Amorite** groups, he had a 170-meter-long wall erected to stop their progress. Generally he managed to keep his realm together, as his **royal inscriptions** document.

SHUTRUK-NAHHUNTE I (REIGNED C. 1185–1155 B.C.).

Elamite king, probably the founder of a dynasty known as the Shutrukides. Having consolidated his rule over **Elam**, he launched a carefully prepared attack against **Babylonia**. He took **Sippar**, **Kish**, and **Babylon**, deposed the last **Kassite** king Zababa-shum-iddina, and imposed heavy **tribute** on the population. He returned to Elam with enormous booty, which included several ancient monuments, such as the stele with **Hammurabi's laws** and statues of **Akkadian** kings. In Babylon, he appointed his own son Kudur-Nahhunte as king.

SILVER. Since there were no metal deposits in Mesopotamia, it had to be imported from outside. The most important sources were in Anatolia, in Cappadocia and the Taurus mountains, referred to as the “silver mountains.” In Mesopotamia, silver was used for luxury objects and jewelry since the **Uruk** period and became a standard of value and medium of exchange in the late third millennium B.C. It could be fashioned into rings, rods, or coils, and had to be weighed for each transaction. Coins were introduced only in the late first millennium.

SIN. **Akkadian** name of the moon **god** whom the Sumerians called Suen or **Nannar**. In writing this was expressed by the number 30, the days of the lunar month. He was also addressed as the “fruit that renews itself” (after the waning of the moon) and the “horned bull.” Like Nanna, he was closely associated with the fertility of cattle but also of **women**, as his epithet “midwife” suggests.

Apart from the ancient moon sanctuary at **Ur**, there was an important **temple** of Sin at **Harran**. Although Sin was popular throughout Mesopotamian history, as the many personal names composed with Sin prove, he never assumed the status of **Enlil** or **Marduk**, except for the time

when the **Babylonian** king **Nabonidus** heavily promoted his cult in the sixth century B.C.

SIN-LEQQE-UNNINNI. Babylonian master scribe and incantation priest in the **Kassite** period. In the Mesopotamian scribal tradition, he is reputed as the author of the **Gilgamesh** epic.

SIPPAR (MODERN ABU HABBAH AND TELL ED-DER). Babylonian city on the river **Euphrates**. It was excavated by **Hormuzd Rassam** (c. 1880), Vincent Scheil (1894), and a Belgian team from 1972 to 1973, and since 1978 by Iraqi archaeologists. The site was occupied since the **Uruk** period in the fourth millennium B.C. and was not abandoned before the **Parthian period**, in the second century A.D. Most of the excavated monuments date from the **Old Babylonian** and **Neo-Babylonian periods**. Sippar was in fact composed of two towns that eventually grew together. One was dominated by the **temple** of a goddess called Anunnitum, the other by the larger sanctuary of the sun god **Shamash**.

Apart from a single reign of an antediluvian king (according to the **Sumerian King List**), Sippar was never the seat of a dynasty. Its main prestige derived from the cult of the sun god and the commercial activities, which were favored by the location of the city in central **Babylonia**, along the navigable Euphrates, and in close proximity also to the **Tigris**. Merchants of Sippar traveled north and westward to **Anatolia** and Syria, as well as east to Iran. Sippar, like **Nippur** and **Babylon**, was one of the privileged cities that enjoyed special **tax** status and whose citizens were exempt from conscription.

Most of the written documentation from the Old Babylonian period was found in the “cloister” of the so-called **naditu women**, who were placed there by their fathers in order to “pray continuously” but who were also free to invest their shares of paternal property. The tablets from the Neo-Babylonian period come mainly from the Shamash temple. Iraqi archaeologists recently discovered an important library at the site.

SLAVERY. In Mesopotamia, slaves were mainly used in a domestic context and not in large-scale public projects as in the Roman empire. The **cuneiform** sign for slave denotes a person “from the mountains,” which means a foreigner.

Slaves could be prisoners of **war**, captured on campaigns against the peoples on the periphery of Mesopotamia, where skirmishes between the **nomadic** tribal populations and the sedentary people were often used as a pretext by Mesopotamian rulers to conduct military expeditions that were little more than slave raids. The men and **women** thus captured could be sold or distributed as personal gifts to individual retainers. There was also commercial slavery, with slave markets in the major **cities**, although it is

not clear how these slaves were procured in the first place.

Once acquired, slaves were marked with a special tonsure and skin mark, and they became the property of their owner, to be passed on to his heirs, hired out, or sold as chattel (*see* INHERITANCE). Any children of slaves were also slaves.

Only wealthy households could afford to have slaves, and only very affluent families had more than one or two. Male slaves worked in all kinds of capacities, in the fields or workshops; they could also be trained as **scribes** and work as secretaries and clerks. Any profit they managed to make was theirs to invest, and there is evidence that some wealthy businessmen had started out as slaves.

The position of female slaves was slightly different; they worked in the house, fields, or textile workshops, but they were also used as concubines—proverbs warn against the disruptive influence of a pretty slave girl in the house. In the **Old Babylonian period**, a barren woman could select a slave girl to bear her husband children, who were then treated as her own offspring. Slaves could be officially freed or adopted into a **family**.

Not all slaves were foreigners or the descendants of captured persons. It was possible for Mesopotamian citizens to sell their children into slavery and to enslave themselves or their wives to their debtors. The duration of their bondage was in proportion to their debt and ended when the amount originally owed had been earned in labor. When the pressures of usurious loans were too high and debt slavery became too widespread (as in the late Old Babylonian period), kings could decree amnesties to release people from debt slavery. *See also* SOCIETY.

SOCIETY. As long as the early inhabitants of the ancient Near East lived in small bands, subsisting on hunting and gathering, they shared their resources equitably and made decisions collectively. The beginnings of social distinction and unequal access to resources are related to the process of sedentarization and **agriculture** in the **Neolithic period**. Control over land and the distribution of surplus were taken over by elite families who legitimized their power through rituals and feasting, as well as by providing military protection. The archaeological records of **Chalcolithic** tombs show a concentration of luxury goods, such as hand-painted **pottery**, weapons, and personal ornaments, which would only be given to deceased individuals of high standing.

By the **Uruk period**, a proto-state system had evolved, in which high-ranking officials controlled a hierarchically ordered **administration** that ensured the collection and distribution of agricultural and artisanal products. The mass of the population was directly engaged in agrarian production—tilling fields, maintaining **irrigation**, and processing harvests—as well as in building monumental structures, such as **temples**, city walls, quays, and **palaces**. They received daily rations of **barley**, oil, and **beer** as

sustenance. This general pattern persisted throughout Mesopotamian history.

By the third millennium, urbanization had become widespread in the alluvial plains. Individual **cities** could be governed by rulers with locally distinctive titles (for instance, *en* in **Uruk**, *ensi* in **Lagash**), which sometimes combine priestly and administrative roles, or by “kings” who rose to power by conquest (*see* **KINGSHIP**). Texts from the **Early Dynastic period** distinguish between commoners, termed “ration takers” or “bondsmen,” whose labor could be called upon for at least part of the year to undertake public works; **slaves**, increasingly acquired through **warfare**; and the elite, who owned their own land, engaged in **trade**, and played a prominent role in the local cult.

In the second millennium, the Code of **Hammurabi** also shows a division into three “classes”: the free citizen (*awilum*), who owned property and had no obligation to serve; the *mushkenum*, who could hold property given to him by the king or temple or other high-ranking owners in return for specified services; and the slaves (*wardum*), who were themselves property of other people or institutions. These social divisions were permeable through the acquisition of property: slaves could legally own land and become manumitted; commoners could buy into lucrative offices and become wealthy owners of property themselves. The reverse process was also possible, as when free citizens became slaves through economic problems and incurred debt slavery. *See also* **ECONOMY**; **FAMILY**; **SLAVERY**; **WOMEN**.

SODEN, WOLFRAM FREIHERR VON (1908–1996). German Assyriologist. He studied with **Benno Landsberger** and wrote a doctoral dissertation, which was subsequently published and established his reputation as a grammarian (*Der hymnisch-epische Dialekt des Akkadischen*, 1933). In 1936 he was offered a teaching position at the University of Göttingen, and while his mentor Landsberger left Germany, he entered the paramilitary *Sturmabteilung* of the National Socialist Party. He spent the war years mainly in the intelligence service. In the process of “denazification” his resumption of an academic career stalled, but because of his outstanding ability and Landsberger’s recommendation, he was offered a position at the University of Vienna (1954), where he remained until 1961. He then moved on to Tübingen, where he stayed until his retirement in 1976. His publications on **Akkadian** grammar and his three-volume Akkadian dictionary continue to be indispensable tools for Assyriologists (*Das akkadische Syllabar*, 1948; *Grundriss der akkadischen Sprache*, 1952; *Akkadisches Handwörterbuch*, 1959–1982).

SUMER. Modern name for the country in southern **Babylonia** (south of **Nippur**) that the Sumerians called *kengi*. The **Akkadian** inscriptions speak

of Sumer (*sumerum*) and (the northern) **Akkad** as constituent of the “country.” Although Sumer was never a coherent political unit, it was linked by cultural and economic practices and norms and the acceptance of urbanism. Already in the fourth millennium B.C. (**Uruk period**), such links can be surmised from the way the **city** seals appear in **administrative** texts and lists.

In the **Early Dynastic period**, there was great rivalry between individual cities and competition over water rights that led to armed clashes. On the other hand, there is also evidence of collective action, which could mobilize large numbers of people in common tasks.

SUMERIAN. Language spoken in southern Mesopotamia until the beginning of the second millennium B.C. It was expressed in writing since the **Early Dynastic period** (earlier forms of **cuneiform** were not meant to reflect a particular idiom). Sumerian texts were written in the “main dialect” (*emegir*), and a secondary dialect was used for female speakers in the texts (*emesal*). It is not related to any other known languages. Its structure is agglutinative and ergative, and it differs greatly from the Semitic languages (e.g., **Akkadian**) that were current in Mesopotamia since the earliest written records.

Most Sumerian sources date from the late third millennium B.C., the time of the **Third Dynasty of Ur**, when Sumerian was the official language for all documents. From the Early Dynastic period, there are important text collections from **Abu Salabik** and **Shuruppak**. Most of the extant copies of Sumerian literary texts (myths, prayers, hymns, humorous dialogues, fables, proverbs, and **royal inscriptions**) date from the **Old Babylonian period**. Sumerian probably became extinct as a spoken language by the mid-second millennium, but it continued to be transmitted in writing as part of advanced **scribal** training until the very end of cuneiform literacy. *See also* FALKENSTEIN, ADAM; KRAMER, SAMUEL NOAH; OPPERT, JULES.

SUMERIAN KING LIST. A compilation of dynasties and the names of kings by a **Babylonian** scholar at the time of the **First Dynasty of Isin**. It begins in remote antiquity and the divine institution of **king-ship** and ends with the reign of Sin-magir (1827–1817 B.C.). The Sumerian King List chronicles the transfer of hegemony (“kingship”) from one **city** to another and thus obscures the reality that several dynasties existed at the same time.

SUPPILULIUMA I (REIGNED C. 1344–1322 B.C.). **Hittite** king. He was responsible for the expansion of the Hittite empire into Upper Mesopotamia and Syria. Most important was his defeat of the kingdom of **Mitanni**, previously the most powerful state in this area. He sacked the Mitanni capital, Washshukanni, and appointed the Mitanni crown prince as his

vassal ruler. He then asserted his authority over other Syrian states by attacking **Aleppo**, **Amurru**, and Alalakh, but he conducted a peace treaty with the **Babylonian** king (possibly **Kadashman-Enlil I**), whose daughter he married.

SYNCHRONISTIC HISTORY. This designates a chronicle work from the **Neo-Assyrian period**, written around 800 B.C. during the reign of **Adad-nirari III**. It concerns events after the destruction of **Babylon** by **Sennacherib** and lists **Assyrian** and **Babylonian** relations in two columns so that synchronicities become apparent.

TAXATION. Compulsory contributions toward public services are a feature of all complex societies. Mesopotamia had two kinds of levies that could be imposed by the main institutional bodies: the **temple**, the state (*see* PALACE), or the **city**. First there were the contributions in labor (corvée duty) or armed service (military duty). Both are well attested since the third millennium B.C. The former could be seen as a legacy of previous social systems where maintenance tasks were performed collectively. Corvée workers were essential for highly labor-intensive jobs such as the clearing and dredging of canals and other irrigation installations, as well as the construction of city walls and public buildings. This workforce was primarily constituted of young men, and also formed the main contingent of fighters in case of military campaigns and for defense (*see* WARFARE).

Taxes in kind levied by temples on their sharecroppers were generally a tenth of the yield (“tithe”). Temples were themselves subject to taxation to the state at times when there was a strong centralized government, as during the time of the **Third Dynasty of Ur**.

That the city ruler could demand payments in **silver** for all kinds of professional activities is made clear in the **royal inscriptions** of **Uruinimgina** of **Lagash** from the 24th century B.C. He was at pains to reduce the exorbitant sums paid to officials for divorces, the brewing of **beer**, or the burial of the dead.

In the **Akkad** period, King **Naram-Sin** introduced a country-wide taxation scheme in which contributions were levied on provinces (city-states) and collected at the capital for distribution. Tax was payable on crops, livestock, **trade**, and craft production. Payments in kind and in silver had to be accounted for, stored, and distributed as required. The **administration** of the tax system made considerable demands on the bureaucratic structure of the state. The detailed workings of the system can best be studied in the documents from the time of the Third Dynasty of Ur.

During the **Old Assyrian period**, merchants doing business in Anatolia paid taxes to the city of **Assur** on leaving with their export goods (e.g., 10 percent on the textiles) and on arrival at **Kanesh**, the trade colony, where the tax payments were used for the maintenance of the colony.

In the **Neo-Assyrian** empire, taxable services extended to any lucrative trade, and there were variable rates for different commodities. Tax collectors could be accompanied by soldiers, to enforce people’s contributions.

Just as individual kings could invent new taxes and new sources of

revenue, they could also reduce the tax burden and exempt temples or cities from payments. Such pronouncements are known from a number of rulers and usually as a reaction to massive rises of insolvency and debt **slavery**. See *MESCHARUM*.

TELL. Arabic word that denotes a mound-shaped hill composed of accumulated layers of debris of habitation, partially eroded by the elements.

TEMPLES. Mesopotamian temples combined several important functions.

Cities were primarily identified by their tutelary deities, and the temples were the houses of the **gods** in a specific place. They provided continuity across time. Rising above the plains, they served as landmarks that could be seen above the low-rise skylines of Mesopotamian cities. In temples the gods were worshipped with sacrifice and rituals, and a large staff looked after the daily services (*see* **PRIESTS**).

Temples were also very large households and owned extensive tracts of **agricultural** land. They were therefore important economic entities. The yields of the fields and pastures, as well as the products of workshops attached to the temples, were primarily used to “feed the gods.” In fact, they also sustained a large number of people attached to the temple as lifelong or temporary personnel.

Temples, much like monasteries in the Middle Ages in Europe, were also centers of learning and **scribal** training. A great number of **cuneiform** tablets were discovered in temple ruins. The forecourts also served to administer justice before the symbols of such deities as **Shamash**, **Marduk**, or **Enlil** (*see* **LAWS**).

Mesopotamian temples were thus complex institutions that played a vital role in Mesopotamian society since a substantial proportion of citizens either depended on the temples entirely for their livelihood or had regular involvement in their economic and/or cultic activities. Temples were able to give loans at lower rates than the private sector and took certain responsibilities toward the destitute.

The relationship between the state and the temples was marked by mutual dependence. The king derived much of his legitimacy from divine approval that was ratified by the consent of the leading temple authorities (e.g., those of **Assur** or **Babylon**). It was a royal duty to repair and maintain the architectural fabric of the country’s major sanctuaries, and they also received a share of wartime booty. In turn, temple estates could be taxed and more or less heavily supervised. In some periods major appointments at the top end of temple hierarchies were made by the king.

Temples were sometimes a source of economic and social stability at times when there was political upheaval or during periods of foreign occupation (such as in the **Achaemenid** or **Seleucid** periods).

Architecturally, temples can be distinguished from other monumental

structures by the elaborately recessed façades and the furnishings in the cult rooms, which included one or more niches for the divine statues with an altar in front of them. The entrance to the cult room was placed in the long wall of the rectangular chamber, with the image placed against the short wall (the “bent axis” approach) or, as often in **Assyria**, with the doorway in the short wall opposite the god’s statue (“direct axis”) (*see* ARCHITECTURE). Like **palaces**, the temples were composed of one or several courtyards, subsidiary buildings grouped around them, and they had strong perimeter walls. Major temples could also boast a **ziggurat**. Because the building and restoration of the sacred “house” was a potentially dangerous undertaking due to the possible anger of the disturbed gods, temple architecture was inherently conservative. The solution most frequently adopted was to rebuild directly on the razed walls of the previous building while incorporating the rubble within a platform, above which the renewed structure arose. Only when a sanctuary was severely dilapidated could any deviations from the original plan be considered.

All such undertakings, even minor restoration work, could only begin once positive and unanimous **omens** had been received through **divination**. Due to the practice of interring inscribed pegs or tablets within the brickwork or beneath the wall, we can ascribe successive restoration phases to particular kings, who also mentioned their building activities in their **year names** or **annals**.

TEXTILES. The use of plant fibers for ropes, nets, baskets, and coverings is very ancient and attested in the ancient Near East from the early Paleolithic and the **Neolithic** periods (Ohalo, Jericho, and Nahal Hemar) onward, in regions where the dry desert climate preserved the fragile evidence. In the historical periods of Mesopotamia, the most important source for textiles was wool, followed by linen. No actual cloth has survived, only imprints left on clay or carbonized remains. However, the textual record is quite rich: apart from technical vocabulary for all the stages of production, from shearing and carding of the wool, to the spinning of thread and the weaving, dyeing, and embroidering, which is carefully enumerated in **lexical lists**, there are **administrative** records detailing expenditures and outputs.

It is clear from the **archives** discovered in large **temple** or **palace** institutions that the manufacture of textiles was an important part of the **economy** and that a large workforce, mainly of **women**, was engaged in this process. Furthermore, the **letters** exchanged between merchants stationed in the **trade** colony of Kültepe (**Kanesh**) and their backers in **Assur** demonstrate the commercial value placed on Mesopotamian cloth.

Different qualities and finishes, even a taste for fashion, were catered for in the production of these luxury fabrics, which were exchanged against **silver**. In later periods too, **Babylonian** textiles were an important export

commodity. Pictorial records, such as the wall **paintings** at **Mari**, show multicolored garments, and the reliefs of the **Assyrian** palaces demonstrate the intricate embroideries of royal garments. *See also* CRAFTS.

THIRD DYNASTY OF UR (C. 2112–2004 B.C.). A dynasty founded by **Ur-Nammu**, who expelled the **Gutian kings** and united the country in a single state that reached from the Persian Gulf to the region of **Sippar**. Ur-Nammu's son **Shulgi** (reigned 2094–2047 B.C.) expanded the influence of **Ur** to include western Iran (the Susiana and Anshan), and his grandson **Amar-Suen** annexed **Assyria**. Shulgi also implemented strong centralization in terms of **administration** and **taxation** and standardized **weights and measures** across his whole domain. The workings of the Ur bureaucracy are well known due to many thousands of tablets that survive from this era.

The Ur empire was threatened by the intensified influx of **Amorite tribes**, and Shu-Sin, the successor and brother of Amar-Suen, built a huge wall in an attempt to stave them off. The Ur state disintegrated during the reign of **Ibbi-Sin**; his governor **Ishbi-Erra**, installed at **Isin**, declared independence from Ur, and in 2007 B.C., the **Elamites** destroyed the capital and deported the king.

THUREAU-DANGIN, FRANÇOIS (1872–1944). French archaeologist and Assyriologist. Having studied under **Jules Oppert** in Paris, he worked on the theory about the origins of **cuneiform** writing (*Recherches sur l'origine de l'écriture cuneiform*, 1898) at a time when knowledge about the existence and nature of the **Sumerian** language was still rudimentary. He was the first to publish many important Sumerian royal inscriptions (*Les inscriptions de Sumer et Akkad*, 1905; *Les cylindres de Gudea*, 1907). From 1902 he worked at the Louvre in Paris, becoming a keeper in 1908. He undertook excavations at Arslan Tash (1927) and Tell Ahmar (Til Barsip) (1929–1931) on behalf of the museum and continued to transcribe many of the Louvre's Sumerian and **Akkadian** texts. He also wrote on an important study of cuneiform **mathematics** (*Textes mathématiques babyloniennes*, 1938).

TIGLATH-PILESER I (TUKULTI-APIL-ESHARA IN ASSYRIAN; REIGNED 1115–1076 B.C.). **Assyrian king** of the **Middle Assyrian period**. He was one of the most important Assyrian kings of this period, largely because of his wide-ranging military campaigns, his enthusiasm for building projects, and his interest in **cuneiform** tablet collections. He campaigned widely in **Anatolia**, where he subjugated numerous peoples, and ventured as far as the Mediterranean Sea. In the capital **city**, **Assur**, he built a new **palace** and established a library, which held numerous tablets on all kinds of scholarly subjects. He also issued a legal decree, the so-

called Middle Assyrian **laws**, and wrote the first royal **annals**. He was also one of the first Assyrian kings to commission parks and gardens stocked with foreign and native trees and plants.

A persistent problem of Tiglath-pileser I's 39-year-long reign was the **Arameans**, who caused disruption throughout the Syrian dependencies of Assyria. There was also a serious conflict with **Babylonia** when **Nebuchadrezzar I** began to make incursions into Assyrian-held territory. Tiglath-pileser retaliated by attacking Babylonian cities. He conquered **Babylon** and destroyed the palace of King **Marduknadin-ahhe**.

TIGLATH-PILESER III (REIGNED 744–727 B.C.). Assyrian king who succeeded Ashur-nirari V, probably in the course of a palace coup at **Kalhu**. He repressed all resistance to his rule and set about regaining Assyrian influence in the Near East. He was a tireless campaigner, leading his powerful **army** for every year but one of his 17-year reign. He began by subduing **Aramean** tribes in **Babylonia**, where he garnered general support on a grand tour of the major sanctuaries. He spent the next few years campaigning in **Anatolia**, where he punished a disloyal vassal of Arpad and strengthened his position in the Taurus region by building fortresses. Most important was a direct attack on the powerful kingdom of **Urartu**, which left Assyria without its interference.

After these successes in the north, he directed his attention to the west, marching down the Syrian coast to capture Gaza. Most Syrian rulers were made to pay **tribute**, but they formed a strong opposition to Tiglath-pileser under the leadership of Rakhianu of Damascus, which took several years and many armed confrontations to subdue.

In the east, Tiglath-pileser stabilized his borders along the Zagros, forcing the Mannaeans to pay tribute. When a rebellion broke out in Babylonia after the death of Nabonassar, he intervened directly by capturing the pretender to the Babylonian throne and declared himself the rightful king of **Babylon**, and he took part in the ceremonies of the Babylonian New Year **festival**.

TIGRIS. Together with the **Euphrates**, this river forms the main waterways in Mesopotamia (literally "Land between the Rivers"). It also springs from the highlands of **Anatolia** and flows through the eastern part of present Turkey, through Diyarbakir, into northern Iraq. Its tributaries are the Greater and the Lesser Zab, which originate in the Zagros mountains of western Iran. The Tigris was the main river of **Assyria**, and most Assyrian cities, such as **Nineveh** and **Assur**, were located along its banks. Unlike the Euphrates, it has a treacherous current and was not navigable.

TIN. Tin was essential for the production of **bronze**, which is an alloy of **copper** and tin. It was always a precious commodity and, like all metals,

had to be imported to Mesopotamia. The first experiments in casting true tin bronze occurred in the late **Uruk period**, as isolated finds from Tepe Gawra document. A flagon discovered at **Kish** and dating from the **Jemdet Nasr** (beginning of the third millennium B.C.) is one the earliest tin bronze objects. Finds from the **Ur** cemetery suggest that tin bronze was preferred for metal vessels, while **silver** bronze was used for **weapons**. Actual tin artifacts are so far only known from finds in some early **Old Babylonian** tombs.

No **cuneiform** sources reveal the place of origin of tin, only its sites of distribution. It is likely that tin was mined in eastern **Anatolia** during the third millennium and exported from there to many distant places. In the early second millennium, however, **Assyrian** merchants brought tin to Anatolia, where it was traded for locally produced silver. It has been suggested that at that time tin came from much farther east, from Afghanistan, perhaps because Anatolian mines had become exhausted. **Mari** also was an important station of distribution in the early **Old Babylonian period**. In the later second and in the first millennia, eastern Anatolia once again supplied tin, as **Hittite** and Assyrian sources indicate.

TRADE. Mesopotamia's primary source of wealth was surplus-producing **agriculture**; the geophysical conditions of the land made it singularly devoid of mineral or **metal** resources. Since mountainous regions to the north (**Anatolia**) and the east (Iran) were inversely endowed, this stimulated active exchanges of goods beginning with the Paleolithic period, when worked and unworked flint and obsidian from Anatolia were distributed widely across the ancient Near East. Due to the considerable mobility of human groups, moving either from camp to camp in a form of transhumance or as **nomads**, raw materials and technologies were disseminated relatively quickly right through the **Chalcolithic period**. Such informal but effective networks of exchange and distribution became considerably more organized and centralized in the **Uruk period**.

The urbanization of Mesopotamia allowed for a concentration and specialization of crafts that relied on regular supplies of raw materials and a skilled workforce. The far-flung outposts of the Uruk culture in western and southwestern Iran and southern Anatolia, with their warehouses and literate personnel, were responsible for the smooth movements of goods in and out of southern Mesopotamia. **Gold, copper, silver**, and minerals such as hematite and lapis lazuli, as well as other hard stones, were worked into jewelry, artifacts used for ritual purposes, and the display of status.

With the emergence of wealthy Mesopotamian city-states in the **Early Dynastic period**, the demand for such commodities rose to new heights, as the fabulous equipment of the so-called Royal Graves at **Ur** show. Of particular importance were gold and lapis lazuli. Two literary texts written in **Sumerian** (from the time of the **Third Dynasty of Ur**) describe how the

city of Uruk began its trade with the fabled city called Aratta, situated in the Iranian highlands, and the main center of the lapis lazuli import from its source in Badashkan (Afghanistan). The king of Uruk wishes to beautify the **temple** for the city-goddess **Inanna**, who is also worshipped at Aratta, and asks her to induce its ruler to send “gold, silver, and lapis lazuli,” as well as skilled artisans. In one text, he sends an army to force Aratta into submission; in the other, the two cities begin a form of contest that leads to regular contacts and the delivery of grain to the famished Arattians. Diplomacy and exchange between friendly polities as well as military aggression were employed by Mesopotamian rulers to ensure the supply of precious metals and stones.

In centralized states, such as the **Akkad Dynasty** or the Third Dynasty of Ur, long-distance trade was supervised and regularized by the state. **Sargon of Akkad** boasts of having ships from **Magan and Meluhha** moor at his capital, and foreign merchants thronged the streets. The government invested in quays, warehouses, tow paths for the river traffic, and the maintenance of overland roads and rest houses, as **Shulgi**, the king of Ur, reports. Mercantile activities were duly **taxed** and became an important source of revenue.

As the countries around Mesopotamia also developed their own stratified states and affluent elites, demand grew for luxury items produced in Mesopotamia. These were **textile** goods (woolen cloth, finished garments, embroidered robes), leatherwear, wooden and inlaid furniture, **bronze** weapons, highly crafted metal, and stone artifacts and jewelry. Such products were exported all over the Near East, including Egypt, during the second millennium and then again during the **Neo-Babylonian period**.

While the state could be instrumental in opening trade routes through **warfare** or diplomacy and by maintaining infrastructure, the actual business of import and export was left to merchants who had their own institutional body, the *karum* or “quay.” The word derives from the mercantile quarter of Mesopotamian cities, which was usually just beyond the city walls, at a convenient landing place by the main waterway. Each *karum* had its own regulatory body that would liaise with a state official. There are at present very few texts from any *karum* within Mesopotamia, and the most important source of mercantile documents comes from an **Assyrian** trade colony in Anatolia (*see* KANESH), which flourished in the early second millennium B.C.

The business was run by Assyrians, who raised capital at home to buy **tin** from an as yet unclear source outside Anatolia, which they transported to Cappadocia on donkeys, a journey lasting some three months. They also exported Assyrian textiles, which were much in demand. In return they imported silver. The **cuneiform** tablets detail the **administrative** organization of the *karum*, the initial investments, profits, and expenses incurred for transport, gifts, and taxes (which had to be paid at Assur and at

the local **palace** in Anatolia).

The volume of trade and the trade routes at any given time depended on a variety of factors, such as internal and external political stability, economic prosperity, and competition over primary resource areas. It fell markedly during the difficult centuries of tribal unrest and political upheaval between the 12th and the 9th centuries B.C. but flourished in the early **Old Babylonian period**, the mid-**Kassite period**, and during **Neo-Assyrian** and Neo-Babylonian imperial expansion.

Within Mesopotamia, the rivers and canals were the most important means of transporting bulk items as well as passengers. Cities on the **Euphrates**, such as **Sippar**, **Mari**, or **Babylon**, had access to Syria and the Mediterranean in the west, importing wine, aromatics, ivory, and copper from Cyprus. Those on the **Tigris** and its sidearms (**Nineveh**, **Assur**, **Eshnunna**) were better placed for the eastern and northern highlands and their resources in silver and precious stones.

Seaborne shipping from the Persian Gulf went eastward to the mouth of the Indus and westward to the Arabian peninsula and the Sudanese coast, bringing gold, precious stones, and pearls, known as “fish-eyes.” The southern city of Ur was long the most active trade city, due to its proximity to the Gulf. Maritime trade only declined when the **Parthians** blocked access to the sea to encourage the northern east-west link, later known as the Silk Road.

The domestication of the **camel** in the late second millennium B.C. opened up trade traffic across the Arabian desert, especially for the incense and aromatics export. *See also* ECONOMY.

TRIBES. Tribes are groups of people who share customs and language and the belief that they descend from a common ancestor. The best evidence for the social organization of ancient tribes comes from the **archive** of **Mari**, a **city** of the Middle **Euphrates**, which was surrounded by tribal populations. Some tribes were predominantly **pastoralists** and moved with their herds of sheep and goats according to available pasture and were essentially **nomads**. Other tribes chose more sedentary modes of life and combined herding with **agriculture**. The authority to settle disputes rested with a patriarchal leader, or *sheikh*, who ruled on a consensual basis.

Tribal groups are often described as causing problems for cities and their hinterland by encroaching on land, destroying crops, and damaging irrigation works. Large waves of immigration from tribal areas, especially the West and East, could cause the general breakdown of central control, and neither military expeditions nor the building of walls to keep them out proved effective in the long run. The pattern throughout Mesopotamian history was a mutually beneficial coexistence of urban populations and tribal people, especially in the regions of **Assyria** and northern **Babylonia**, and of large-scale tribal immigration that, after initial destabilization, would

result in the absorption of significant numbers of tribal people and their elites into the urban population. *See also* ARABS; ARAMEANS; CHALDEANS; GUTI; KASSITES.

TRIBUTE. Tribute is the enforced delivery of goods, services, or people imposed on a country or region after a military defeat. In contrast to booty and plunder, which is amassed by soldiers during **warfare**, tribute payments are meant to be maintained over a period of time, usually as long as the victorious country is able to assert its power. They serve to acknowledge the superiority and hegemony of the victor.

The earliest evidence for this practice in Mesopotamia dates from the first emergence of a centralized state during the **Akkad** period. **Naram-Sin** (reigned c. 2260–2224 B.C.) claims to have received tribute from the rulers of Subartu (later **Assyria**) and other unspecified “highlands,” but in Mesopotamia such practices were not very common until the imperial expansion of Assyria in the late second and first millennium.

The Assyrians had a system of provinces and vassal states. While in Assyrian provinces Assyrian officials were in charge of raising and collecting taxes, vassal kings had to provide the equivalent contribution as rent for their thrones and extracted this from their people. The Assyrian **administration** at the capital kept careful watch over the regularity and extent of these payments. Refusal or inability to deliver was punished by retributive military action.

TUKULTI-NINURTA I (REIGNED C. 1244–C. 1208 B.C.). **Assyrian king** of the **Middle Assyrian period**. He was one of the most famous Assyrian soldier kings who campaigned incessantly to maintain Assyrian possessions and influence. He reacted with spectacular cruelty to any sign of revolt and crushed a coalition of kings in **Anatolia**, the so-called Nairi. He subdued the Zagros region to the east and spread terror in the Van region.

In **Babylonia**, he took the **Kassite** king Kashtiliash V and his family prisoners and declared himself king of **Babylon**, which began the first period of direct Assyrian rule over Babylonia. This produced a strong Babylonian influence over Assyria as Tukulti-Ninurta was keen to benefit from the learning and cultural sophistication of the subdued nation. He built a new **palace**, called Kar-Tukulti-Ninurta, but also invested in grand rebuilding programs of **temples** at **Assur** and **Nineveh**. According to an Assyrian chronicle, Tukulti-Ninurta was assassinated in his new palace.

TUKULTI-NINURTA II (REIGNED C. 890–884 B.C.). **Assyrian king** and son of **Adad-nirari II**. Through numerous campaigns, he consolidated Assyrian control over the West: the **Euphrates** region and **Anatolia**. He also reported in his **royal inscriptions** that he embellished his **palace** at **Assur** with glazed tiles.

TUMMAL CHRONICLE. An **Old Babylonian** chronicle that lists **kings** who contributed to the rebuilding of the Tummal, the **temple** of Ninlil at **Nippur**. The account begins with the **Early Dynastic** king Mebaragesi of **Kish**.

UBAID PERIOD (C. 5500–4000 B.C.). Prehistoric period named after the site Tell el-Ubaid, near **Ur**. It was the time when the first settlements appeared in the alluvial plains of southern Mesopotamia, with houses built of rammed earth. The characteristic **pottery** was hand shaped and hand painted. The goods deposited in Ubaid cemeteries, as well as the architectural evidence, seem to point to social stratification. *See also* ERIDU.

UMMA (MODERN DJOKHA). Sumerian city in south Mesopotamia, excavated in 1930 by a French team under Henri de Genouillac. It was situated along a network of canals that linked the major rivers **Euphrates** and **Tigris**. Umma was a city-state of some importance in the **Early Dynastic period**. Its history is known primarily from tablets found at **Lagash** and **Girsu** that document a long conflict over border territories. Some kings of Umma have left inscribed votive objects but are otherwise unknown.

A certain Enakale attacked **Eannatum** of Lagash in the 25th century B.C. and thereafter concluded a treaty and erected a dike to delineate the border. This seems to have been respected for some time until the war flared up again under his successors, and it only came to an end with **Lugalzagesi** (reigned c. 2341–c. 2316), who attacked and destroyed Girsu, before conquering other Sumerian cities.

When Lugalzagesi was in turn defeated by **Sargon of Akkad**, Umma became part of the **Akkad** state. The city continued to prosper until the end of the third millennium B.C. The main deity of Umma was the **god** Shara.

UR (MODERN TELL MUQAYYAR). Important Mesopotamian city in southern **Babylonia**. The site was first excavated by H. R. Hall in 1918–1919, and later by a joint expedition of the British Museum and the University Museum of Pennsylvania under **Leonard Woolley** (1922–1934). It was situated on the **Euphrates** and had access to the Persian Gulf. Ur has a long and continuous history of occupation that began in the **Ubaid period** (c. 4500 B.C.) and ended around 450 B.C. It was the seat of the moon **god Nanna(r)**, or **Sin**. The earliest levels were not substantially excavated and are mainly known from **pottery** and tools. During the **Uruk period**, a monumental building with cone mosaic decoration was erected.

Ur began to develop into a major city in the third millennium B.C., during the **Early Dynastic period**. The **Sumerian King List** records two

dynasties at Ur. The First Dynasty was more or less contemporary with the period of the so-called Royal Graves of Ur, excavated by Woolley. The elaborate burial gifts demonstrate the considerable wealth of the elite. Of the four kings mentioned by the King List, only Mesannepadda is known from brief inscriptions on objects found in the graves. The question of whether the other personages buried in the graves, both male and female, were sacrificial victims or secondary interments is still debated. According to the Sumerian King List, the Second Dynasty of Ur had four **kings**, whose names are not preserved.

During the **Akkad** period, Ur formed part of the empire founded by **Sargon of Akkad**, whose daughter, **Enheduanna**, served the moon god as the highest-ranking priestess. Ur was one of the cities that rebelled against **Naram-Sin**.

The apogee of Ur's importance was the **Third Dynasty of Ur** (c. 2100–2000), when the city became the capital of a large and prosperous empire. Most of the extant architectural structures and **cuneiform** tablets found at Ur date from this period. **Ur-Nammu**, the founder of the dynasty, built a large **ziggurat** that has been partially restored. His successors continued his building works in the sacred precinct that included the **temples** of Nanna and Ningal, as well as the residence of the *entu* priestesses. Although the city was destroyed by the **Elamites** in 2007, the temples plundered and torched, and the inhabitants massacred, it was soon reinhabited.

In the **Old Babylonian period**, Ur was an important center of learning, and from this time a number of residential buildings have been excavated that give a good impression of the densely built urban fabric of a Mesopotamian town. The “heirs” of Ur, the kings of **Isin** and **Larsa**, were keen to show their respect to the gods of Ur by repairing the devastated temples. Despite the ecological problems experienced by the south toward the mid-second millennium, Ur continued to function, and the **Kassite** kings were also eager to contribute to the moon god's temples. So did subsequent rulers: **Nebuchadrezzar I** rebuilt the *giparu* and revitalized the office of the *entu* priestess.

Assyrian kings and governors also invested in the sacred precinct at Ur, and finally **Nabonidus**, with his well-publicized devotion to Sin, ordered the reconstruction of the ziggurat. The city began to decline during the **Achaemenid period**, and records cease after the end of the fourth century B.C. *See also* KURIGALZU I.

URARTU. Kingdom in eastern **Anatolia** and western Iran, with a central area between Lake Van and Lake Sevan. Its history is known from rock inscriptions in Urartian, a late dialect of **Hurrian**, as well as **Assyrian annals** and letters. Urartu began with a confederation of Hurrian tribes in the ninth century B.C. and reached its greatest territorial expansion around 800 B.C. under king Menua (reigned c. 810–c. 785 B.C.).

The Urartians were skilled at building massive **fortifications** and impressive hydraulic projects, such as aqueducts, dams, and canals, some of which are still in use to this day.

The Urartian expansion conflicted with **Neo-Assyrian** imperial aspirations. **Tiglath-pileser III** waged several campaigns against Urartu and laid an ultimately unsuccessful siege to Tushpa in 735, which resulted in the mutual recognition of their borders and areas of influence. Such agreements did not last very long during this time when political allegiances were rapidly changing. The Assyrians were keen to secure their access to the northern **trade** routes and their supply of **metal, horses**, and manpower.

Urartu was also under pressure from Caucasian **nomads**, such as the Cimmerians, who ravaged their countryside. It was **Sargon II** in 714 who mounted the biggest military expedition against Urartu, which is vividly described in his **annals** of the eighth campaign. He marched across the rugged mountain at the head of his troops and managed to take the Urartian camp by surprise. He went on to sack one of their sacred sites, the **temple** of Musasir. The Urartians were not broken by these attacks, however, and under Rusa II the kingdom regained much of its power and influence. He also moved the capital from Tushpa to Toprakkale near Van.

Rusa's son Sarduri III submitted to **Ashurbanipal** in c. 636 and was defeated by the Cimmerians and **Elamites**. It was the combined and repeated onslaughts of the Cimmerians and the **Medes** who brought the Urartian kingdom to an end, following the disappearance of the Assyrian empire after 610 B.C.

UR-NAMMU (REIGNED 2113–2096 B.C.). King of Ur, founder of the **Third Dynasty of Ur**. He was a governor of Ur during the reign of Utuhegal of **Uruk** but made himself independent after his successful expulsion of the **Guti**. He asserted his authority over other **Sumerian cities**, such as **Lagash**, to form a strongly centralized state, with the capital at Ur. He initiated ambitious building programs, such as the **ziggurat** at Ur, as well as at Uruk. He also ordered the construction of new canals, rebuilt the city walls of Ur, planted date-palm orchards, and did much to enhance the economic and military security of the country. For such efforts he was lauded in a Sumerian hymn that also extols his dedication to the god **Enlil** of **Nippur**. Ur-Nammu was also the subject of other literary works, such as a text in which he visits the Netherworld. He was portrayed on a stone stele that shows him making an offering to a **deity**. He was succeeded by his son **Shulgi**.

URUINIMGINA (PREVIOUSLY READ URUKAGINA; REIGNED C. 2351–C. 2342 B.C.). Sumerian ruler of **Lagash**. During his reign, Lagash experienced years of prosperity. Uruinimgina initiated a series of reforms

that curtailed excessive **taxation** and exorbitant fees charged by officials to the population for their services. He also claims to have put an end to the custom of **women** having more than one husband. He was the last independent ruler of Lagash in the **Early Dynastic period**, having suffered a defeat by **Lugalzagesi** of **Uruk**.

URUK (MODERN WARKA). Important Mesopotamian **city** in the southern plains, situated along the old course of the **Euphrates**. The site was first excavated by **William Loftus** in 1853–1855 and has been excavated almost continuously by German teams of archaeologists since the late 19th century. These campaigns continued until 2003, when the United States–led coalition invaded Iraq. Only about a fifth of the vast ruin field has been explored in depth.

Uruk was occupied from the late fifth millennium B.C. until the Muslim conquests in the seventh century A.D. During the fourth millennium B.C., Uruk encompassed two settlements, each with a distinct series of habitation. In the historical period, they were associated with **Inanna** (the site of the Eanna **temple**) and **Anu** (also known in antiquity as Kullab). Uruk experienced rapid growth in the mid-fourth millennium that lasted until c. 3000 B.C. Huge **architectural** monuments were put up in rapid succession and were built in a variety of techniques. The wall surfaces were decorated with characteristic patterns, often made from clay cones embedded in plaster. These structures, which have been designated as “temples,” show a concern for symmetry and monumentality.

During this period, known as the **Uruk period**, writing on clay tablets was invented to deal with a complex system of distribution and exchange that linked southern Mesopotamia to southern and western Iran, Upper Mesopotamia, and southeast **Anatolia**. Uruk was at this time the only large urban center, and it may have been the hub of the **administration** of the Uruk network, if not the actual capital of a “pristine” state, as has been suggested. By c. 3100, this system disintegrated, and there was upheaval at Uruk, as various large buildings were demolished.

In the **Early Dynastic period** when the process of urbanization had spread across southern Mesopotamia, Uruk became the seat of several dynasties. At that time it became surrounded by a huge wall of some 10 kilometers in length that was attributed to **Gilgamesh**, who is listed as a king of the first Uruk dynasty in the **Sumerian King List**.

By the mid-third millennium, **Lugalzagesi** had assumed the throne of Uruk and conquered all the **Sumerian** city-states. He was defeated by **Sargon of Akkad**. However, building at the sacred precincts of Inanna and Anu continued under the Akkad kings and during the **Third Dynasty of Ur**, whose rulers claimed a special affinity with the ancient city.

After the fall of the **Ur** state, Uruk went into decline, although the **Kassites** initiated some rebuilding at the **Ishtar temple** (see

KARAINDASH; KURIGALZU). The city revived in the first millennium, when the newly refurbished and enlarged temples controlled vast **agricultural** areas of production.

The intense economic activities at Uruk continued well into the **Seleucid** and early **Parthian** periods. Important tablet collections, of administrative as well as scholarly content, date from this late period. The city fared better under the Parthians and **Sassanians** than other Mesopotamian cities but was finally abandoned at the time of the **Arab** invasion of A.D. 634.

URUK PERIOD (C. 4000–3200 B.C.). A prehistoric period in Mesopotamia named after its most important archaeological site, **Uruk**. It is in turn divided into several phases (Early, Middle, and Late), as suggested by the 18 successive layers of the Uruk site **Eanna**. The fully fledged Uruk culture sets in at level X (c. 3800) when mass-produced, thick-walled clay bowls with beveled rims make their first appearance. **Cylinder seals** were introduced in the time of level VII (c. 3600), and monumental **architecture** dates from the Middle Uruk period 1, levels VI–IV (c. 3500–3300). The buildings of level VI, such as the so-called Stone Cone **Temple**, were erected on large platforms and were of impressive size (28 by 19 meters). Those of level V (“Lime Stone Temple”) were even bigger (62.5 by 11.30 meters), and the walls had elaborately articulated façades.

At this stage, **writing** appeared, in pictographic form, to facilitate the increasingly complex economic activities at Uruk itself and in those centers farther afield that belonged to the Uruk sphere of influence. The text on these “archaic” tablets can be understood but not read; they do not appear to express any particular **language**. The tablets are tallies, receipts for goods and services, allocations of fields and labor, calculations of yield, and so forth. The earliest **lexical lists** were also composed at this time.

The Uruk phenomenon is still much debated, as to what extent Uruk exercised political control over the large area covered by the Uruk artifacts, whether this relied on the use of force, and which institutions were in charge. Too little of the site has been excavated to provide any firm answers to these questions. However, it is clear that at this time, the urbanization process was set in motion, concentrated at Uruk itself. Other **cities** in Mesopotamia were coming into existence, as the city seals on the archaic tablets demonstrate. There was an unprecedented amount of coordination and collaboration in respect to the organization of **agricultural** labor and the distribution of goods and services over a large area.

UTU. The **Sumerian** name of the sun **god** (see SHAMASH).

WARFARE. Violent confrontations between groups of people usually arise from disputes over access to resources such as water, game, and exploitable territories. While there is little evidence from the prehistoric period for organized military action, the presence of walls around settlements (as in Jericho), caches of slingshots, and human skeletal remains with marks of wounds indicate that warlike practices were not uncommon. Seals from the **Uruk period** show naked captives with their arms tied behind their backs being prodded along, interpreted as prisoners of war.

During the first half of the third millennium B.C., Mesopotamia was divided into competing **city-states**, and there is documentary and visual evidence for intercivity warfare. The best-known conflict is that between **Lagash** and **Umma**, which fought for generations over some fields at their mutual borders. The texts describe that hostile actions were perceived as an insult to the local **gods**, who were said to lead the troops of their city to battle. The famous “Stele of Vultures” (now in the Louvre) depicts the god Ningirsu marching at the head of a tight formation of helmeted soldiers carrying spears and shields (*see* WEAPONS). They trample over the naked bodies of their dead enemies.

The victorious party could inflict punishment on the defeated, setting fire to buildings and looting **temples** and **palaces**. They could also impose a treaty that stipulated, as in the case of Umma, the new boundaries and the financial and material reparations to be made. Spoils of war were deposited in the temple of the city god.

When the country became unified under the rule of the **Akkadian dynasty**, this was first of all the result of superior military force against other Mesopotamian cities. The **royal inscriptions** of **Sargon of Akkad**, for instance, enumerate the number of battles he won and the cities he forced to submit to his hegemony. He also emphasizes that “5,400 men” daily ate at his table, which may indicate a sizeable bodyguard if not a corps of soldiers.

The Akkadian **kings** also initiated sorties and campaigns abroad, to **Elam** in the east, Syria in the northwest, and Upper Mesopotamia. Such raids were meant to inspire fear in the population, impressing upon them the superiority of the Akkadian power, and brought not only booty from sacked towns and villages but also more formal recognition of Akkadian rights over **trade** routes and **tribute** payments. Furthermore, conquered territories could be distributed to deserving individuals.

The increased use of warfare since the mid-third millennium helped to

strengthen the role of kings as leaders of the armed forces who had a special mandate from the gods (the Akkadian kings stressed the support of **Ishtar**) to defend their realm and to enrich it by aggressive sorties abroad. It appears, though, that most of the fighting was against other Mesopotamian cities keen to shake off the yoke of Akkad. In fact, the pacification of rebellious cities became a main theme in the royal inscriptions of **Naram-Sin**.

Another threat against the stability of a unified country was the uncontrollable influx of **tribal** groups in search of land. This was met with organized resistance and the punishment of tribal leaders, although the evasive “guerilla tactics” employed by many tribal immigrants often proved undefeatable.

In the mid-second millennium B.C., “international” conflicts arose between the “great powers” (e.g., **Egypt**, **Mitanni**, the **Hittites**, and **Assyria**), over the control of “colonial” territories, especially Syria and the Levant. Not only were these regions agriculturally productive and populous, they gave access to the flow of commodities to and from the Mediterranean, Anatolia, and the east. These intense rivalries were to lead to large armies marching across vast distances to do battle far away from their homeland. The local rulers became implicated as vassals, having to support garrisons of the occupying forces. Such wars continued to affect the Near East throughout the first millennium B.C., abated briefly during the **Achaemenid period**, and flared up again when the **Seleucids** clashed with the Ptolemies and the Romans with the Parthians.

The greatest military power in Mesopotamia was Assyria. The expansion of the **Middle Assyrian** and the **Neo-Assyrian** empires demanded constant campaigning to secure Assyria’s access to vital raw materials, especially **metals, horses**, and manpower. The Assyrian **army** was recruited from subdued territories as well as the mainland, well equipped, and trained by experienced military personnel. The king was the overall commander, and the most successful Assyrian kings (such as **Tiglath-pileser III**, **Sargon II**, and **Adad-nirari I** and **II**) were indefatigable campaigners who year after year led their troops to punish rebellious vassals, conquer new lands, and fight against troublesome tribal groups. They could also be represented by a chief commander who was not infrequently a **eunuch**.

The technology of warfare underwent several important changes. In the third millennium B.C., the main body of the soldiers fought on foot, using spears and axes, although archery contingents also played a role. The king and other commanding officers rode in sturdy box-like **chariots** driven by donkeys. In the second millennium, horses began to play an increasingly important part. Chariots became much lighter and easier to maneuver. Chariot teams could be driven into the serried ranks of foot soldiers; they provided a better view of the action and generally made an impressive and frightening impact. They were to become the elite troops of the mid-second

millennium.

The foot soldiers armed with spears were augmented by mounted archers and spear-men by the Assyrians in the first millennium. Their armies also included siege engines and battering rams to break down city walls. They used soldiers from subjugated areas for specialist tasks, such as fighting in mountainous terrain, the desert (on **camels**), the marshland, or on ships. There were also ritual specialists, diviners to be consulted about the right timing of attacks, priests, bureaucrats who counted prisoners and casualties, cooks, baggage trains, musicians, and female camp followers.

Psychological warfare was not unknown, as the epic “Gilgamesh and Agga of Kish” and other **Sumerian** literary texts document. Exaggerated boasts about the strength of one’s troops, terrible threats, and intimidation were meant to secure the submission of the other party. Severe punishments meted out to rebellious subjects were another favored technique, much employed by the Assyrians. The walls of royal palaces were covered with propagandistic depictions of the might and invincibility of the Assyrian forces and dreadful fate waiting for potential traitors. Impaling, flaying, and gouging out of eyes were some of the more gruesome Assyrian punishments meant to dissuade subjects from insurrection.

WEAPONS. In the prehistoric periods, it is not possible to differentiate between tools and weapons, due to the multipurpose design of early equipment. Bows and arrows can be used to shoot at game animals but also at other human beings; hammers and axes, too, can be applied to all manners of materials, as well as other people’s heads. The increased specialization and Mesopotamia’s organization into competing **city**-states in the third millennium B.C. contributed to the professionalization of soldiers.

Texts and visual depictions, as well as grave goods, show the military equipment of the period. Warriors were protected by tight-fitting (leather?) caps, cloaks, and shields. They used stone-headed maces and **bronze** daggers for hand-to-hand combat. Projectile weapons, such as spears and arrows, were made of stone, bone, and wood. Kings and members of the elite were given ceremonial weapons made of **gold** when they were buried. They may have also played a role in courtly ritual and display and could be offered to **gods** as votive gifts.

In the second millennium B.C., improvements in molding techniques led to elaborately worked and decorated daggers and axes as well as mass-produced bronze arrowheads. Bows underwent several changes in design; it seems that composite bows, made from layers of different materials to improve strength and elasticity, were invented already in the third millennium.

Of great importance was the introduction of **chariot** troops in the mid-second millennium. The **Assyrians** were the first to use cavalry troops.

Assyrian reliefs give the best and most detailed evidence for weaponry of

the first millennium. Soldiers wore pointed helmets, coats of mail, shin guards, and long as well as round, bronze-coated shields. The infantry had spears and daggers, while cavalry units were armed with spears or bows and arrows. *See also* ARMY; WARFARE.

WEIDNER, ERNST (1891–1976). German Assyriologist. He studied in Leipzig where he wrote his dissertation on Babylonian **astronomy**, a subject that remained a lifelong interest. In 1923 he founded a scholarly journal, later known as the *Archiv für Orientforschung*, which he edited until his death in 1976. In 1943 he obtained a position at the Karl Franzens University in Graz, Austria, having written a study on **Assyrian** reliefs (*Die Reliefs der assyrischen Könige. Teil 1: Die Reliefs in England, in der Vatikanstadt und in Italien*, 1942). He continued to work on astronomical tablets but also published editions of Assyrian **royal inscriptions** (*Die Inschriften Tukulti-Ninurtas I. und seiner Nachfolger*, 1959) and **cuneiform** texts from the **Hittite** capital, Hattusa (Boghazköy).

WEIGHTS AND MEASURES. While there is considerable evidence for weights from diverse historical periods in the form of weight stones of various shapes, other measuring standards have to be deduced from architectural remains and the written evidence. Most **cities** had their own standards, but most centralized states since the **Akkadian Dynasty** began to impose unified weights and measures to be used throughout the country. A similar system was adopted by the **Third Dynasty of Ur** and remained in use throughout all subsequent periods. Such measures were also used for teaching purposes in **scribal** education. Since the basic mathematical system was sexagesimal, basic units were divided or multiplied in a sexagesimal manner.

The measurements for length were based on the human body. The basic was the forearm or cubit (Akkadian *ammātu*)—about 50 centimeters. A “foot” was $\frac{2}{3}$ of a cubit, a “palm” $\frac{1}{2}$, and a “finger” $\frac{1}{30}$ of a cubit. Larger units were the “rod,” consisting of six cubits, and the “cord” of 120 cubits. A mile (Akkadian *beru*) was 180 cords or 21,600 cubits (10,692 kilometers). Surfaces were measured by “garden plots” (Akkadian *musaru*) = c. 35 square meters; there were also multiples called *iku* = 100 *musaru* and *buru* = 18 *iku* (= 6 hectare). The capacity measure was the SILA (Akkadian *qu*) = c. 1 liter.

Different names and proportions were used for solid and liquid matter, and the terminology changed in different epochs. The basic weight unit was the *mina* = c. 500 grams, subdivided into shekels (Akkadian *siqlu*) = $\frac{1}{60}$ of a mina, and a “grain” (Akkadian *se*) = $\frac{1}{180}$ of a mina. The multiples were the talent (Akkadian *biltu*) = 60 minas.

WOMEN. There is documentary, visual, and archaeological evidence for the

role women played in Mesopotamian **society** through the ages. In many early textual sources, however, the gender of persons mentioned is not always clear. It appears that in the **Uruk period** there was, at least ritually, a complementarity between male and female; the highest male office (EN) had a female equivalent (NIN), and both are depicted as officiating side by side at important functions. During the **Early Dynastic period**, women could also occupy highly prestigious offices, as the grave goods in the “Royal Tombs” at **Ur** and inscribed votive gifts demonstrate. According to the **Sumerian King List**, there was even a female ruler of **Kish**.

It seems, though, that female status at high levels diminished progressively after the Early Dynastic period. There were some remnants of influential positions, such as that of the *entu* **priestess** of the moon god at Ur, which was often held by daughters of the ruling king. Princesses and queens owed their social rank to their relationship with the king and especially some queens could at times hold the balance of power after their husband’s death (*see* SEMIRAMIS). Royal daughters, on the other hand, could be married off to secure political alliances and to provide an informal intelligence system.

Written documents also shed some light on the legal position of women in Mesopotamia. They could hold and acquire property, **slaves**, and other valuables; invest their dowries as appropriate; engage in business ventures of various kinds; and begin litigation. They were not, however, able to be witnesses in legal disputes. Of particular interest are the documents that belonged to the *naditu* women at **Sippar**, who lived in seclusion and engaged in business activities while performing various cultic duties at the temple.

Marriages were generally monogamous and arranged by parents; girls married earlier than men and, when widowed, could marry again. Since Mesopotamian society was patriarchal, women could instigate divorce only in cases of gross neglect and cruelty, and male adultery was not a justifiable reason. Women could be divorced on grounds of barrenness, refusal to perform marital duties, and becoming “hateful” to their husbands. This was less easy if they had borne children. Female adultery was punished with great severity, according to the Code of **Ur-Nammu**, with the death penalty (while the male lover was spared). In **Hammurabi’s law** code, the accused adulterous couple was bound together and thrown in the river; if the river “accepted” them and they drowned, it was both proof of guilt and punishment.

Most legal documents referring to women (in marriage contracts, divorce settlements, **inheritance** suits, or business affairs) concern women of the affluent groups of society. Some high-status women, such as the privileged cloistered *naditu* women, even employed their own female secretaries. These texts make it clear that such women could dispose over considerable wealth, deriving from their dowries, their husband’s gifts, or their own

enterprise at their own discretion.

While the main contribution of all women was to bear and raise children, they also formed part of the workforce in Mesopotamia. The names of thousands of “ordinary” women are known from the **administrative** texts of large institutions, such as **temples** and **palaces** where they were employed in a great variety of occupations. They performed domestic work, such as the endless grinding of grain at millstones; backbreaking towing of barges along canals; reed cutting and other heavy **agricultural** work; domestic chores; and, importantly, in the textile workshops. They also performed services in the temple, ranging from administrative duties to praying, dancing, or singing. Altogether, female workers (and their children) were an integral and important part of Mesopotamia’s urban society. This is also documented by the numerous professional titles preserved in the **lexical lists**.

Women laborers were paid half the rations of men, generally 30 liters per month (six days were deducted from their productivity to take account of menstruation).

Women could also engage in business. Most commonly they were tavern keepers, where they sold different varieties of **beer**, lent small sums of **silver**, and provided some form of entertainment. They were often partners in business with their husbands; in **Old Assyrian Assur**, they oversaw the **trade** activities at home while their menfolk were abroad, and sometimes they produced some of the merchandise themselves (e.g., **textiles**) for a share of the profits. Similar practices are also known from the **Old** and **Neo-Babylonian periods**. Women’s movements and opportunities appear to have been more restricted in Assyria, where they were also under the obligation to wear a veil in public.

In Mesopotamian literature, women were active both as authors (*see* ENHEDUANNA), composing hymns, prayers, and love songs (as during the time of the **Third Dynasty of Ur**), and as performers in cultic or courtly settings. The most prominent female personage in literary texts is the **goddess Inanna-Ishtar** whose ambition, vitality, and independence is matched by charm, sex appeal, and ingenuity. In **Sumerian** love songs, she embodies the much admired libidinous powers of female sexuality, while some later **Babylonian** texts place more emphasis on the destructive aspects of her personality.

Fear of seductive women is also much in evidence in the **omen** literature, especially in antiwitchcraft incantations. *See also* FAMILY.

WOOLLEY, SIR C. LEONARD (1880–1960). British archaeologist and writer. Educated in Oxford, where he read Theology, he became assistant keeper to the Ashmolean Museum in 1905–1907 and had his first experiences with archaeology in Italy and southern **Egypt**. In 1912 he joined T. E. Lawrence in his excavations of Carchemish (until 1914). He

served as intelligence officer in Egypt during World War I and joined Lawrence again in 1919. He participated in the Egypt Exploration Society's seasons in **Amarna** in Egypt, but his most important commission was to direct the joint British Museum and Pennsylvania Museum expedition at **Ur** (1922–1934). He showed great self-restraint in not persisting in the excavation of fragile remains found in the so-called Royal Tombs until he had perfected a suitable method. His spectacular finds in the richly furnished tombs, and the mysterious burial practices that he believed to have been sacrificial, were followed by the careful excavations of residential parts of **Old Babylonian** Ur. Woolley's religious convictions made him anxious to interpret his findings in the light of the Bible, such that Ur for him became the city of Abraham and the silt deposits proof of the biblical flood. These views were expounded in a series of highly popular books (*Ur of the Chaldees: A Record of Seven Years of Excavations*, 1929; *Digging up the Past: The Romance of Archaeology*, 1930). He was knighted in 1935. In 1936 he worked on Al Mina, in Syria, and at Tell Atchana from 1937 to 1939 and 1946 to 1949.

WRITING. Writing was first invented to provide a durable record for economic transactions that transcended simple barter. In the **Neolithic period**, small tokens of different shapes, or with marks on them, were used for simple forms of accounting.

In the fourth millennium B.C., when **Uruk** became a major center for distribution and exchange, the greater complexity of **administration** demanded more sophisticated recording systems, and small clay tablets were used, imprinted with abstracted pictorial representations and signs for numbers. They could be used, for example, to compute projected yields, as proof for delivered goods and expenditure of labor and rations. This form of writing was in use throughout the considerably large sphere of influence of the Uruk culture. It provided a medium for information that could be understood by bureaucrats with some basic training, but it did not attempt to record sentences in a particular idiom.

This step happened after the end of the Uruk period, and the original pictographs were also used to refer to the phonetic value of the depicted subject; for example, the picture of a bee could be used to represent the notion of “to be” in English.

The language of the earliest readable texts was **Sumerian**, and the Sumerian syllabary became the primary referent when the same signs were used to express other **languages**, such as **Elamite** or **Akkadian**. This extended use complicated the writing system considerably and required an extended period of **scribal** education. This was made easier with the help of lists of syllables and signs, with columns for pronunciation. There were also **lexical lists**, divided into subject categories such as “wood, trees, and wooden objects,” “metal and metallic objects,” living beings, professional

and geographical terms, divine names, and so forth. Such syllabaries and lexical lists were not only transmitted throughout Mesopotamian history but also used as basic reference texts in foreign cultures when **cuneiform** was adopted to express local languages.

By the end of the second millennium B.C., west Semitic peoples invented new systems of writing that were more suitable for the linguistic peculiarities of their languages and quicker to learn. One such experiment was the cuneiform syllabary of Ugarit, a wealthy trading kingdom in northwest Syria. Farther south, under the influence of **Egyptian** hieroglyphics, another form of writing was invented that singled out those hieroglyphs with consonantal values. Few records exist, except for some rock-cut inscriptions.

Since the **Arameans** were a populous people who spread across the whole of the Near East, Aramaic writing became widespread. Aramaic, written on parchment or some similar flat surface, had been in use in **Assyria**, alongside cuneiform, since the eighth century. It was adopted as the main official script by the **Achaemenids** and remained in use well into the Roman era.

YAMHAD. An important state in northern Syria during the second millennium B.C., with **Aleppo** as its capital. It had close ties with **Mari**, whose **archives** furnish much of the textual evidence. The **Hittites** also had dealings with **Yamhad** until Aleppo was destroyed by **Mursili I** around 1600 B.C. and the state ceased to exist.

YEAR NAMES. During the **Akkadian Dynasty**, a system of dating was introduced in which years were named in hindsight after a significant event, such as the appointment of a senior official or **priest**, a military campaign, or the inauguration of an important building. The current year, as well as those in which nothing special occurred, were called “year after —— happened.” Lists of year names were collected and collated with the regnal years of **kings**. This system was used throughout southern Mesopotamia for centuries but not in **Assyria**, where they used the **eponym** dating. The lists of year names, as well as year names recorded in **administrative** records, are an important source of historical information, especially for those periods in which written documentation is sparse. *See also* HISTORIOGRAPHY.

ZIGGURAT. This loan word, derived from the **Akkadian** *ziqurratu*, designates **architectural** structures that resemble stepped pyramids in outline. They were built solidly, with no internal chambers, from mudbrick, sometimes with an outer mantle of baked brick. Ziggurats had **religious** significance; they were usually part of a **temple** complex and had a chapel at the uppermost platform that was reached by a series of ramps and steps. No ziggurat is preserved well enough to allow a valid reconstruction. **Assyrian** ziggurats were usually directly attached to a “low temple,” while **Babylonian** ziggurats were freestanding. In general, all these structures provided a lofty stage, a kind of ladder for the **gods** to come closer to Earth and for the priests to draw nearer to the heavens. They also formed landmarks that were visible from afar.

ZIMMERN, HEINRICH (1862–1931). German Assyriologist. From 1881 to 1885 he studied theology and Semitic languages at Leipzig and Berlin, specializing in **Akkadian**, which he studied under **Friedrich Delitzsch**, and worked on his doctoral dissertation on the subject of Babylonian penitential psalms. He went on to Erlangen, Strassburg, and Halle before he was offered a position as professor of Assyriology at Leipzig in 1894, where he remained until retirement. He was one of the editors of the Hebrew and Aramaic dictionary, but his main scholarly project was a major study of **Babylonian religion**, mainly based on **cuneiform** ritual tablets (*Zur Kenntnis der babylonischen Religion*, 1896–1901).

ZIMRI-LIM (REIGNED C. 1775–1761 B.C.). King of Mari in the **Old Babylonian period**. When **Shamshi-Addu I** conquered Mari, Zimri-Lim, then a child, went into exile to the kingdom of **Yamhad**, the daughter of whose king he later married. After the death of Shamshi-Addu, he returned to claim the throne. He was skillful at using his contacts with Yamhad and other Syrian polities to extend his influence in Middle **Babylonia** and formed alliances with other rulers, such as **Hammurabi** of **Babylon**. He maintained good relations with the **nomadic** tribes around Mari and established a profitable network of **trade** along the **Euphrates** and beyond. The wealth thus generated he invested in building a vast and sumptuously appointed **palace**. The reign of Zimri-Lim is unusually well documented, thanks to a surviving **archive** in the palace that details his diplomatic and military activities. He was defeated by Hammurabi when the latter attacked and sacked the palace in c. 1761 B.C.

Appendix 1

Rulers of Mesopotamia

The numbers concern regnal year. Dates for all of the third and much of the second millennium are provisional. Several dynasties or individual reigns were contemporary with others.

EARLY DYNASTIC PERIOD

Kish

Mebaragesi	c. 2650?
Agga	c. 2600?
Mesalim	c. 2550?

Ur

Meskalamdug	c. 2620?
Akalamdug	c. 2600?

Lagash

Enhegal	c. 2570
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Lugal-saengur	c. 2550
Ur-Nanshe	c. 2494–2465
Akurgal	c. 2464–2455
Eannatum	c. 2454–2425
Enannatum I	c. 2424–2404
Enmetena	c. 2403–c. 2375
Enannatum II	c. 2374–c. 2365
Enentarzi	c. 2364–c. 2359
Lugalanda	c. 2358–2352
Uruinimgina	c. 2351–2342

Uruk

Lugalzagesi	c. 2341–2316
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AKKADIAN EMPIRE

Akkad

Sargon	c. 2340–2284?
Rimush	c. 2284–2276
Manishtusu	c. 2275–2261
Naram-Sin	c. 2260–c. 2224
Shar-kali-sharri	c. 2223–c. 2198
[Gutian rule]	

NEO-SUMERIAN PERIOD

Uruk (Second Dynasty)

Utuhegal	c. 2119–2112
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Lagash

Gudea

c. 2141–c. 2122

Third Dynasty of Ur

Ur-Nammu

c. 2113–c. 2096

Shulgi

c. 2094–2047

Amar-Suen

c. 2046–c. 2038

Shu-Sin

c. 2037–c. 2027

Ibbi-Sin

c. 2026–2004?

OLD BABYLONIAN PERIOD

First Dynasty of Isin

Ishbi-Erra

c. 2017–c. 1985

Shu-ilishu

c. 1984–c. 1975

Iddin-Dagan

c. 1974–1954

Ishme-Dagan

c. 1953–c. 1935

Lipit-Ishtar

c. 1934–c. 1923

Ur-Ninurta

c. 1923–c. 1896

Bur-Sin

c. 1895–c. 1874

Lipit-Enlil

c. 1873–c. 1869

Erra-imitti

c. 1868–c. 1861

Enlil-bani

c. 1860–c. 1837

Zabiyu

c. 1836–c. 1834

Ishme-pisha

c. 1833–c. 1831

Ur-dukuga

c. 1830–1828

Sin-magir

c. 1827–c. 1817

Damqi-ilishu

c. 1816–c. 1794

Dynasty of Larsa

Naplanum

c. 2025–c. 2005

Emisum

c. 2004–c. 1977

Samium

c. 1976–c. 1942

Zabaya

c. 1941–c. 1933

Gungunum	c. 1932–c. 1906
Abisare	c. 1905–c. 1895
Sumuel	c. 1894–1866
Nur-Adad	c. 1865–1850
Sin-iddinam	c. 1849–c. 1843
Sin-eribam	c. 1842–c. 1841
Sin-iqisham	c. 1840–1836
Silli-Adad	c. 1835
Warad-Sin	c. 1834–c. 1823
Rim-Sin I	c. 1822–1763
Rim-Sin II	c. 1741–?

First Dynasty of Babylon

Sumu-abum	c. 1894–c. 1881
Sumula’el	c. 1880–c. 1845
Sabium	c. 1844–1831
Apil-Sin	c. 1830–c. 1813
Sin-muballit	c. 1812–c. 1793
Hammurabi	c. 1792–c. 1750
Samsu-iluna	c. 1749–c. 1712
Abi-esuh	c. 1711–c. 1684
Ammi-ditana	c. 1683–c. 1647
Ammi-saduqa	c. 1646–c. 1626
Samsu-ditana	c. 1625–c. 1595

OLD ASSYRIAN PERIOD

Puzur-Ashur I?	(Early 20th century)
Shalim-Ahhe	c. 1970?
Ilu-shuma	c. 1960–c. 1939
Erishum I	c. 1939–c. 1900
Ikunum?	(Early 19th century)
Sargon I?	(Early 19th century)
Puzur-Ashur II?	(Mid-19th century)

Naram-Sin	(Late 19th century)
Shamshi-Addu I	c. 1813–c. 1781
Ishme-Dagan	c. 1780–c. 1741

Mari

Yaggid-Lim	c. 1820–c. 1811
Yahdun-Lim	c. 1810–c. 1795
Sumuyaman	c. 1794–?
(Shamshi-Adad)	
(Yasmah-Adad)	
Zimri-Lim	c. 1775–1761

MIDDLE BABYLONIAN PERIOD

Kassite Dynasty

Gandash	c. 1729–?
Agum I	(Early 18th century)
Kashtiliash I	c. 1660–?
Burnaburiash I	c. 1530–1500?
Karaindash	c. 1440–c. 1430
Kadashman-Harbe?	(Late 15th century?)
Kurigalzu I	c. 1430–1380
Kadashman-Enlil I	c. 1380–c. 1359
Burnaburiash II	c. 1359–c. 1334
Karahardash	c. 1333
Nazi-bugash	c. 1333
Kurigalzu II	c. 1332–c. 1308
Nazi-Maruttash	c. 1307–c. 1282
Kadashman-Turgu	c. 1281–c. 1264
Kudur-Enlil	c. 1254–1225
Tukulti-Ninurta	c. 1225
Enlil-nadin-shumi	c. 1224
Kadashman-Harbe II	c. 1223
Adad-shum(a)-iddina	c. 1222–1217

Adad-shum-usur	c. 1216–1187
Marduk-apla-iddina I	c. 1171–c. 1159
Zababa-shum-iddina	c. 1158
Enlil-nadin-ahi	c. 1157–1155

Second Dynasty of Isin

Marduk-kabit-ahheshu	c. 1155–c. 1141
Itti-Marduk-balatu	c. 1140–c. 1133
Ninurta-nadin-shumi	c. 1132–c. 1127
Nebuchadrezzar I	c. 1126–c. 1105
Enlil-nadin-apli	c. 1104–c. 1111
Marduk-nadin-ahhe	c. 1100–c. 1083
Adad-apla-iddina	c. 1082–c. 1070
Marduk-ahhe-eriba	c. 1069–c. 1048
Marduk-zer-x(?)	c. 1046–c. 1035
Nabu-shum-libur	c. 1034–1027

Second Sealand Dynasty

Simbar-Shipak	c. 1026–c. 1010
Ea-mukin-zeri	c. 1009
Kashshu-nadin-ahi	c. 1008–1006

Bazi Dynasty

Eulmash-shakin-shumi	c. 1005–c. 989
Ninurta-kudurri-usur I	c. 988–c. 987
Shirikti-Shuqamuna	c. 986
[Elamite ruler]	c. 985–c. 980
Mar-biti-apla-usur	

MIDDLE ASSYRIAN PERIOD

Ashur-rabi I?	(Early 15th century)
Ashur-nadin-ahhe I	(Mid-15th century)

Enlil-nasir II	c. 1432–c. 1427
Ashur-nirari II	c. 1426–c. 1420
Ashur-bel-nisheshu	c. 1419–c. 1411
Ashur-rem-nisheshu	c. 1410–c. 1403
Ashur-nadin-ahhe	c. 1402–c. 1393
Eriba-Adad I	c. 1392–c. 1366
Ashur-uballit I	c. 1365–c. 1330
Enlil-nirari	c. 1329–c. 1320
Arik-den-ili	c. 1319–c. 1308
Adad-nirari I	c. 1307–c. 1275
Shalmaneser I	c. 1274–c. 1245
Tukulti-Ninurta I	c. 1244–c. 1208
Ashur-nadin-apli	c. 1207–c. 1204
Ashur-nirari III	c. 1203–c. 1198
Enlil-kudurri-usur	c. 1197–c. 1193
Ninurta-apil-Ekur	c. 1192–c. 1180
Ashur-dan I	c. 1179–c. 1134
Ninurta-tukulti-Assur	c. 1133?
Mutakkil-Nusku	c. 1133?
Ashur-resh-ishi	c. 1133–c. 1116
Tiglath-pileser I	c. 1115–c. 1076
Ashared-apil-Ekur	c. 1076–c. 1075
Ashur-bel-kala	c. 1074–1057
Eriba-Adad II	c. 1056–c. 1055
Shamshi-Adad II	c. 1054–c. 1051
Ashurnasirpal I	c. 1050–c. 1032
Shalmaneser II	c. 1031–c. 1020
Ashur-nirari IV	c. 1019–c. 1014
Ashur-rabi II	c. 1013–c. 973
Ashur-resh-ishi	c. 972–c. 968
Tiglath-pileser II	c. 967–c. 934

NEO-BABYLONIAN PERIOD

Dynasty of E

Nabu-mukin-apli	c. 979–c. 945
Ninurta-kudurri-usur	c. 944
Mar-bit-ahhe-iddina	c. 943–c. 906
Shamash-mudammiq	c. 905–c. 896
Nabu-shuma-ukin	c. 895–c. 871
Nabu-apla-iddina	c. 870–c. 855
Marduk-zakir-shumi	c. 854–c. 819
Marduk-balassu-iqbi	c. 818–c. 813
Baba-aha-iddina	c. 812–?
[six unknown kings]	c. 770–c. 761
Marduk-bel-zeri?	
Marduk-apla-usur?	
Eriba-Marduk	
Nabu-shuma-ishkun	c. 760–c. 748
Nabu-nasir	747–734
Nabu-nadin-zeri	733
Nabu-shuma-ukin II	732
Nabu-mukin-zeri	731–729
(Tiglath-pileser)	728–727
(Shalmaneser)	726–722
Marduk-apla-iddina	721–710
(Sargon)	709
[Succession unclear for several rulers]	667–648
(Esarhaddon)	
Shamash-shum-ukin	
Kandalanu	647–627?

NEO-ASSYRIAN PERIOD

Ashur-resh-ishi II	c. 972–c. 968
Tiglath-pileser II	c. 967–c. 935
Ashur-dan II	c. 934–912
Adad-nirari II	911–891
Tukulti-Ninurta II	890–884
Ashurnasirpal II	883–859

Shalmaneser III	858–824
Shamshi-Adad V	823–811
Adad-nirari III	810–783
Shalmaneser IV	782–773
Ashur-dan III	772–755
Ashur-nirari V	754–745
Tiglath-pileser III	744–727
Shalmaneser V	726–722
Sargon II	721–705
Sennacherib	704–681
Esarhaddon	680–669
Ashurbanipal	668–627?
Ashur-etil-ilani	630?–626?
Sin-shar-ishkun	622?–610
Ashur-uballit III	609

NEO-BABYLONIAN PERIOD

Chaldean Dynasty

Nabopolassar	626–605
Nebuchadrezzar II	605–562
Amel-Marduk	561–560
Neriglissar	559–557
Labashi-Marduk	556
Nabonidus	555–539

ACHAEMENID PERIOD

Cyrus II	c. 559–530
Cambyses II	530–522
Darius I	522–486
Xerxes	486–465

Artaxerxes I	465–424/23
Darius II	423–405
Artaxerxes II	405–359
Artaxerxes III	359–338
Artaxerxes IV	338–336
Darius III	336–330

HELLENISTIC PERIOD

Alexander the Great (reigned in Babylon from 331 to 321)

Antigonus Monophthalmos

Selucus I Nicator (reigned in Babylon from 305 to 281)

Antiochus I Soter

Antiochus II

Selucus II

Antiochus III the Great

Selucus III Philopator

Antiochus IV Epiphanes

Antiochus V Eupator

Demetrius I Soter

Antiochus VI Sidetes

PARTHIAN PERIOD

Phraates I (ruled Babylonia from 129 to 127)

Artabanus

Mithridates II the Great

Romans occupy Mesopotamia]

Phraates III

Appendix 2

Museums with Mesopotamian Collections

Note: An asterisk indicates large or important collections.

Belgium

Musées Royaux d'Art et d'Histoire
Parc du Cinquantaine, 10
B-1000 Bruxelles

Canada

Royal Ontario Museum
1379 Sherbrooke Street West
Montreal, Quebec H3G 1J5

Denmark

The National Museum of Denmark
Department of Classical and Near Eastern Antiquities
Ny Vestergarde, 10
DK-1220 Copenhagen

France

Ecole pratique des hautes études
45-47, rue des Ecoles
F-75005 Paris

Musée du Louvre*
34, Quai du Louvre
F-75058 Paris

Germany

Staatliche Museen, Vorderasiatisches Museum*
Pergamonmuseum
Berlin-Mitte

Uruk-Warka Sammlung
Ruprechts-Karl Universität
Hauptstrasse 126
Heidelberg

Hilprecht Sammlung
Friedrich-Schiller Universität
Kalaische Straße 1
D-07745 Jena

Archäologische Staatssammlungen, München
Museum für Vor- und Frühgeschichte
Archäologische Museen
Karmeliterstrasse 1
D-60311 Frankfurt am Main

Iraq

The Iraq Museum*
The General Directorate of Antiquities
Baghdad

Israel

Bible Lands Museum
Granot, 25
Jerusalem 93706

The Israel Museum
Hakiriya
Jerusalem 91710

Italy

Museo Archeologico
Via della Colonna, 38
I-50121 Florence

Vatican Museum
00120 Vatican City

Netherlands

National Museum of Antiquities
Rapenburg 28
NL-2301 Leiden

Russia

State Pushkin Museum of Fine Arts
Oriental Department
Volchonka, 12
121019 Moscow

State Hermitage Museum
Oriental Department
Dvortsovaya Naberezhnaya, 34
191186 St. Petersburg

Syrian Arab Republic

Aleppo National Museum*
The Directorate of Aleppo Antiquities
Aleppo

The National Museum of Damascus*
The General Directorate of Museums and Antiquities
Damascus

Turkey

Museum of Anatolian Civilisations
Hisar cad.
Ulus
Ankara

Archaeology Museum Istanbul

Topkapi Palace
Gülhane Park
Istanbul

United Kingdom

City Museums and Art Gallery
Department of Antiquities
Chamberlain Square
Birmingham B3 3DH

Royal Museum of Scotland
Chambers Street
Edinburgh EH1 1JH

Liverpool Museum
William Brown Street
Liverpool L3 8EN

British Museum*
Department of Western Asiatics
Great Russell Street
London WC1 3DG

The Manchester Museum
University of Manchester
Oxford Road
Manchester M13 9PL

The Ashmolean Museum
Department of Antiquities
University of Oxford
Beaumont Street
Oxford OX1 2PH

United States

Kelsey Museum of Ancient and Medieval Archaeology
University of Michigan
434 South State Street
Ann Arbor, Michigan 48104

The Walters Art Gallery
600 North Charles Street
Baltimore, Maryland 21201-5185

The Semitic Museum
Harvard University
Cambridge, Massachusetts 02138

Oriental Institute Museum*
University of Chicago
1155 East 58th Street
Chicago, Illinois 60637-1569

Peabody Museum
Yale University
New Haven, Connecticut 06520

Metropolitan Museum of Art*
1000 Fifth Street
New York, New York 10028-0198

University Museum of the University of Pennsylvania*
33rd and Spruce Street
Philadelphia, Pennsylvania 19104

National Museum of Natural History
Smithsonian Institution
Washington, D.C. 20560

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- Literature
 - Akkadian Literature
 - Sumerian Literature
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INTRODUCTION

The bibliography is structured in alphabetic order of sections as above, beginning with “agriculture” and ending with “writing.” The section on history is subdivided into chronological subdivisions, from prehistory to the Achaemenid period. Edited volumes (“Festschrift”) in honor of individual scholars can be found under “Collections” but they have also been incorporated into relevant contexts of the bibliography.

The history, archaeology, societies, and material cultures of ancient Mesopotamia are debated in a great number of academic specialist journals, books, monographs, and edited volumes. Such publications go back to the late 19th century when the cuneiform tablets discovered in Mesopotamian archaeological sites began to be copied, transcribed, and translated. Since this time, the main centers of Assyriological scholarship are in Germany, Great Britain, France, and the United States. The Netherlands, Belgium, Austria, Italy, the Scandinavian countries (notably Finland), Russia, and the Czech Republic also have specialist departments at their universities, and more recently Japan has begun to make contributions, especially in Sumerian

studies. Equally important is the work done by archaeologists and Assyriologists in the Middle East, in Iraq, Syria, Turkey, and Israel. The majority of scholarly publications are written in German, English, and French.

The sources in this bibliography are a selection of works on various topics, meant as a starting point for references, as well as giving examples of recent contributions and debates, primarily using sources in English but also in French and German. More comprehensive bibliographies can be found in most of the works quoted here, as well as in specialist library databases of universities. Some departments also have websites giving information of archaeological excavation, and increasingly, cuneiform sources are available online. Databases can be accessed through keywords such as *Mesopotamian archaeology*, *Babylon*, *Assyria*, *Sumer*, *Assyriology*, *Ancient Near East*, and so on. Most major museums have online information about their collections and associated information. Reliable translations of cuneiform literary texts can be found on www.etana.org and for the Sumerian works on www.etcsl.orient.ox.ac.uk.

A number of reference works and general sourcebooks summarize current knowledge on the topics covered in the book. The most exhaustive and scholarly encyclopedia is the *Reallexikon der Assyriologie und Archäologie* (with articles in German, French, and English). The first volume was published in Berlin in 1928. It is a work in progress and now published by Walter de Gruyter (Berlin and New York). Less comprehensive and more accessible is the five-volume collection of essays *Civilizations of the Ancient Near East* (1995). For Mesopotamian history, the *Cambridge Ancient History* (Vols. I, II, III/1, III/2, IV, VI [rev. ed.] [1972–1994]) provides authoritative accounts, although some earlier editions are now outdated. Concise historical overviews can be found in *The Ancient Near East. c. 3000–300 B.C.* (1995) and *The Ancient Near East: A History* (2nd ed., 1998). Also very useful is the *Cultural Atlas of Mesopotamia and the Ancient Near East* (1990). Historical reference works are *Who's Who in the Ancient Near East* (1999) and the British Museum's *Dictionary of the Ancient Near East* (2000).

For peoples of ancient Mesopotamia, there is *The Sumerians* (1963), *The Babylonians* (1995), *The Babylonians: An Introduction* (2003), *Peoples of Old Testament Times* (1973), *The Historical Dictionary of the Hittites* (2004), and *The Babylonian World* (2007). A good introduction on archaeology is *The Near East: Archaeology in the 'Cradle of Civilization'* (1998), and Frankfort's *The Art and Architecture of the Ancient Near East* (4th ed., 1970) is still the best available survey. For the difficult topic of astronomical cuneiform texts, see *Mesopotamian Planetary Astronomy-Astrology* (2000). On the subjects of material culture and daily life, Moorey's two-volume *Materials and Manufacture in Ancient Mesopotamia* (1985, 1994) and Nemet-Najat's *Daily Life in Ancient Mesopotamia* (1999) provide good surveys. *Law Collections from Mesopotamia and Asia Minor* (1995) introduce the foundation of legal systems.

The best collections of Mesopotamian literature in English translation are Moorey's *Before the Muses: An Anthology of Akkadian Literature* (1996) and *From Distant Days: Myths, Tales and Poetry of Ancient Mesopotamia* (1995), George's new translation of the *Epic of Gilgamesh* (1999), and Jacobsen's *Haps that Once . . . : Sumerian Poetry in Translation* (1978).

There are various reference works on Mesopotamian gods and other supernatural beings (*Gods, Demons, and Symbols of Ancient Mesopotamia* [1992], *Sumerian Gods and Their Representations* [1997], and *A Dictionary of Ancient Near Eastern Mythology* [1998]) though few overviews; *Religion in Ancient Mesopotamia* (2001) is a recent attempt. On the subject of economics and trade, readers could consult Dercksen's *Trade and Finance in Ancient Mesopotamia* (1999), as well as *Creating Economic Order: Record-Keeping, Standardization, and the Development of Accounting in the Ancient Near East* (2004).

Specialist libraries are associated with the main centers of Assyriological research and are concentrated in Europe and the United States. Some of the most prominent libraries are found in the University of London's School of Asian and African Studies (SOAS); the British Museum in London; the universities of Heidelberg, Göttingen, Leipzig, Berlin, Munich, and Freiburg in Germany, Leiden in the Netherlands, and Helsinki; the Centre de la recherche scientifique in Paris; the Chicago Oriental Institute; Pennsylvania State University; and Yale University. Cuneiform tablet collections are held at the Archaeological Museum of Istanbul, the Louvre, the British Museum, the Pergamon Museum in Berlin, the Pierpont Morgan Collection in New York, and the Chicago Oriental Institute.

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